

## **Chapter Two: Landscape Physical History**



## CHAPTER 2: LANDSCAPE PHYSICAL HISTORY

### Introduction

Based upon guidance provided in the scope of work and research conducted in preparation of the site physical history, this chapter is divided into 12 separate periods. These periods were defined both by the documented changes to the landscape and the cultural contexts of their occupation:

- Period I: PaleoIndian Period ca. 11,000 – 8,000 before present (BP);
- Period II: Archaic Period, ca. 8,000 to 1,500 BP;
- Period III: Late Prehistoric Period, ca. 1,500 BP to 1700;
- Period IV: Pend d'Oreille, Flathead, and the early European settlement of Western Montana, ca. 1700 – 1860;
- Period V: The establishment of the John Grant Ranch, Cottonwood, and incipient stock raising, 1860-1866;
- Period VI: The Conrad Kohrs Home Ranch and the Growth and Development of the Ranching Industry on the Northern Plains, 1866-1887;
- Period VII: The Decline of the Open Range and Dissolution of the Kohrs-Bielenberg Ranch, 1887-1922;
- Period VIII: The Conrad K. Warren Era: Rebuilding the Ranch and the application of scientific advances in veterinary medicine, 1922-1940;
- Period IX: The Warren Hereford Ranch, 1940-1958;
- Period X: Post-Dispersal and efforts to establish a National Park, 1958-1972;
- Period XI: The National Park Service and Early Conservation Efforts, 1972-1988; and
- Period XII: Acquisition of the Con Warren Ranch, 1988-2002.

## PaleoIndian Period, ca. 11,000 to 8,000 BP

### Introduction

The earliest human occupation of North America can be dated to the PaleoIndian period. PaleoIndian peoples were required to adapt to a rapidly changing environment. Like many of the subsequent occupants of the Deer Lodge Valley, PaleoIndian peoples were migratory groups that followed seasonally adaptive subsistence strategies. Based on the scarce material culture left behind, archeologists believe that they were predominantly hunters who relied upon killing large mammals. No archeological sites from the PaleoIndian period are known to exist within the project area.

### Historical Context

Towards the end of the Pleistocene,<sup>1</sup> a general global warming took place as glaciers retreated northward and melting of the expansive ice sheets created a wetter and cooler climate. As a result, water became plentiful and numerous lakes were created. Lush vegetation, including grasses and other steppe plants dominated the valleys and steppes of the regional Plateau environment. Coniferous forests, with Douglas Fir predominating, became more widespread and grew at much lower elevations.<sup>2</sup>

Over the 4,000-years that define the PaleoIndian period,<sup>3</sup> the climate of the region changed dramatically. After the glacial retreat, the region slowly began to turn both warmer and dryer. Elk, bison, deer, mountain sheep and pronghorn antelope dominated the terrestrial fauna of the Columbia Basin. Circa 9,500 to 6,400 BP, the southern and eastern Plateau region became even drier, and by 6,500 BP a cooler climate had begun to develop.<sup>4</sup>

The earliest human history of the larger northwest region is generally termed the PaleoIndian period. With the retreat of the glaciers, most of the eastern Plateau region would have been opened up to human habitation by 12,000 BP at the latest. The PaleoIndian period is generally divided up into two distinct cultural entities, early and late, and is characterized by the material culture remains of the peoples who occupied the area. The earliest PaleoIndian complex is characterized by the Clovis and subsequent Folsom cultures.<sup>5</sup> The types of material culture most commonly identified from these cultures are distinctive fluted, lanceolate projectile points found predominantly at Plains kill and butchering sites associated with extinct mega-fauna. Archeologists believe that Clovis and Folsom peoples were highly nomadic foragers traveling in small groups and following a generalized subsistence with an emphasis on hunting. Because they depended to a large degree on hunting, they likely followed the migrations of regional fauna. Towards the end of the early PaleoIndian period as Folsom peoples began to more efficiently

<sup>1</sup> The Pleistocene, commonly referred to as the Ice Age, began approximately two million years ago and gave way to the Holocene around 10,000 years BP.

<sup>2</sup> James C. Chatters, "Environment," in *Handbook of North American Indians*, Volume 12, Plateau, Deward E. Walker Jr., ed. (Washington, D.C.: Smithsonian Institution Press, 1998), 43; James C. Chatters and David L. Pokotylo, "Prehistory: Introduction," in *Handbook of North American Indians*, Volume 12, Plateau, Deward E. Walker Jr., ed. (Washington, D.C.: Smithsonian Institution Press, 1998), 73.

<sup>3</sup> Within the larger U. S., the PaleoIndian period is roughly defined as between 13,000 – 9,000 BP, however in the Powell County vicinity, strong evidence for PaleoIndian occupation of the area occurs only between 11,500 – 9,000 BP.

<sup>4</sup> Chatters, "Environment," 44-45.

<sup>5</sup> Within the project area, there is no material evidence for Clovis or Folsom occupation. In the broader eastern Plateau region, PaleoIndian presence is represented by scattered findings of points. Because of this, the discussion of the PaleoIndian period will necessarily focus to a large degree on the larger north west region as it speaks to the specific project area.



utilize native flora, it is likely that specific ecological niches were repeatedly visited on a seasonal basis and that plant gathering may have been initiated on a seasonal basis. Habitations most likely consisted of temporary camps in the open and in caves and rock shelters. Clovis and Folsom points however are found infrequently in the eastern Plateau region. Faunal remains from non-cultural deposits suggest that the eastern Plateau region contained a greater diversity of animals, including bighorn sheep, wapiti, mule and white tail deer, and bison, than that represented at western Plains kill sites.<sup>6</sup>

Later PaleoIndian complexes compose the Plano complex and are identified in the eastern Plateau region by Plainview, Midland and Agate Basin type points, found predominantly in eastern valleys. Paleo-Indians, as represented by individual finds of points and other lithics, were clearly present in the Deer Lodge Valley but there are no documented PaleoIndian sites documented within the project area. Within Powell County however, excavations at the Avon site (24PW340) have identified Agate Basin and Frederick type points. Radiocarbon dates from associated sediments have dated the site to 9,250 to 9,670 BP. Also during the later PaleoIndian period, several points typical of western Plains types begin to appear mostly along the Clark Fork River and its tributaries. This may possibly be accounted for in the precipitation of seasonal migration of small groups of late PaleoIndian peoples into the eastern most valleys and drainages in search of resources.<sup>7</sup>

#### Landscape Characteristics by Chronological Period

##### **Natural Systems and Features**

###### **Hunting and Gathering**

PaleoIndian peoples were intimately familiar with the natural environment surrounding them. Their archeological sites are found in a number of diverse environments and are directly related to the particular resource (e.g. lithic, flora, fauna) located there.

###### **Seasonal Migration**

PaleoIndian peoples were necessarily nomadic, following the migrations and habitat of native fauna and harvesting seasonally selected flora.

###### **Expansion and Contraction**

PaleoIndian peoples responded to a dramatically changing climate (e.g. milder and wetter, or cooler and drier climates) by altering their subsistence patterns to reflect the abundance or scarcity of available hunting and gathering options.

<sup>6</sup> Chatters and Pokotylo, "Prehistory," 73-74; Tom E. Roll and Steven Hackenberger, "Prehistory of the Eastern Plateau," in *Handbook of North American Indians*, Volume 12, Plateau, Deward E. Walker Jr., ed. (Washington, D.C.: Smithsonian Institution Press, 1998), 123-124.

<sup>7</sup> Roll and Hackenberger, "Eastern Plateau," 123-124.

## **Spatial Organization**

### **Site Location**

Archeological sites that represent the PaleoIndian period are located throughout the entire eastern Plateau region, in both mountain and valley context.

## **Land Use**

### **Hunting**

In general, PaleoIndian (Clovis and Folsom cultural groups) peoples hunted a variety of now extinct animals within the Eastern Plateau region including large bison, camel, horse, bighorn sheep, wapiti, deer and mammoth. Later, herds of bison were trapped and slaughtered as part of a communal activity.

### **Gathering**

PaleoIndian peoples gathered a variety of regional flora for dietary, medicinal, functional or ceremonial uses.

## **Circulation**

### **Valley Floors and Mountain Passes**

The circulation networks utilized by PaleoIndian peoples likely followed the natural corridors dictated by regional topography and characterized by valleys and mountain passes. Circulation routes were chosen because of their ability to lead PaleoIndian peoples to selected resources. Many of these circulation routes were used on a seasonal basis.

## **Buildings and Structures**

### **Caves and shelters**

PaleoIndian peoples utilized available caves and other permanent shelters throughout the region.

## Archaic Period, ca. 8,000 to 1,500 BP

### Introduction

Evidence from archeological sites dating to the Archaic Period on the Northwestern Plains generally reflects a gradual transition to a broader, more diverse subsistence base that included both hunting and gathering. Material culture from the Archaic period is characterized by smaller triangular shaped points that were used to hunt bison and other small to medium sized animals. Also during this period, evidence suggests that plant foods became a more important part of the human diet. Most of the known Archaic archeological sites within the project area date to the Middle Archaic period, ca. 5,000 – 3,000 BP.

### Historical Context

Environmental conditions in the eastern Plateau region during the first 1,500 years of the Archaic period appear to be unchanged from the PaleoIndian period. The lowlands continued to become warmer and more arid. By about 6,500 BP however, the regional environment cooled and a slight increase in moisture occurred. This resulted in the gradual descent of conifer forests dominated by Douglas Fir and Ponderosa pine, and the consequent shrinking of grasslands. Following the diminishing grasslands, ungulate populations migrated to the areas where they were concentrated, most likely on valley bottoms.<sup>8</sup>

Material culture characteristic of the Early Plains Archaic period (ca. 8,000 – 5,000 BP) are larger triangular side-notched, lanceolate un-notched points, including Bitterroot, Salmon River, and Mummy Cave types. No Early Archaic sites are known to exist within the project area however in the larger region several important sites including the Mummy Cave Site (48PA201) in northwestern Wyoming and the Indian Creek site and Canyon Ferry Reservoir Basin are known.<sup>9</sup>

During the Middle Plains Archaic (ca. 5,000 – 3,000 BP), Oxbow type points, and later what is now identified as the McKean complex, a wide assortment of points and tools that include McKean, Duncan and Hanna points are representative of the period. The diversity of the McKean complex appears to reflect adaptations to abundant resources and generally speaking, a broadened subsistence base that include the communal hunting of bison, and dependence on a variety of small and medium sized animals. The Middle Archaic is also significant in that the first artifacts documenting extensive plant consumption, ground stone tools and roasting pits, date to this period. The earliest evidence of foraging for roots, most likely camas tubers, appears ca. 6,400 BP with the presence of earth ovens. Frison has also proposed that 'tipi' rings or stone circles first begin to appear during the Middle Archaic. Settlement pattern analysis appears to show a transition from terrace and upland utilization early in the Archaic, to increasingly prevalent floodplain and lowland utilization during the middle and later part of the Archaic period. It is thought that this trend may reflect an overall adaptation to migrating fauna.<sup>10</sup>

Surrounding the park, Middle Plains Archaic sites have been identified within the Deep Creek - French Creek and Canyon Ferry Reservoir areas. Within the project area, site 24PW1076 may

<sup>8</sup> Chatters, "Environment," 44-45; Chatters and Pokotylo, "Prehistory," 74; Roll and Hackenberger, "Eastern Plateau," 125, 131.

<sup>9</sup> Midwest Archeological Center, "Grant-Kohrs Ranch National Historic Site, Archeological Overview and Assessment" (Revised 1998), 5-8.

<sup>10</sup> Chatters, "Environment," 44-45; Chatters and Pokotylo, "Prehistory," 74-76; Roll and Hackenberger, "Eastern Plateau," 125-128, 131-132; Midwest Archeological Center, "Grant-Kohrs Ranch," 5-8.

possibly date to the Middle Archaic period. While the site contains two, and possibly a third stone circle, no diagnostic artifacts were found in association with it. This and the fact that stone circles are found in the larger region from the Middle Archaic through the historic period, make accurately dating 24PW1076 difficult. In addition, investigations at two other sites within the park, 24PW1078 and 24PW1079, recovered points and point fragments that “resemble Middle Archaic Points of the Columbia Plateau more than any other points common to the area.” However like 24PW1076, few diagnostic types were recovered to provide a chronological and cultural indicator for the sites.<sup>11</sup>

Late Plains Archaic (ca. 3,000 – 1,500 BP) material culture is characterized by the disappearance of the McKean complex and the presence of corner notched and corner removed points, including Pelican Lake and later Besant points. Like former periods, subsistence strategies pursued were broadly diverse and intensified. Although none have been documented in the project area, Late Archaic sites have been recorded and are present within the larger region at both Deep Creek – French Creek, and at the Schmitt Quarry site in the Three Forks area.<sup>12</sup>

### Landscape Characteristic by Chronological Period

#### **Natural Systems and Features**

##### **Hunting and Gathering**

Archaic peoples were intimately familiar with the natural environment surrounding them. Their archeological sites are found in a number of diverse environments and are directly related to the particular resource (e.g. lithic, flora, fauna) located there.

##### **Seasonal Migration**

Archaic peoples were necessarily nomadic, following the migrations and habitat of native fauna and harvesting seasonally selected flora.

##### **Expansion and Contraction**

Archaic peoples responded to a dramatically changing climate (e.g. milder and wetter, or cooler and drier climates) by altering their subsistence patterns to reflect the abundance or scarcity of available resources.

##### **Hunting traps**

Archaic peoples utilized unique natural features such as cliffs, box canyons, and hunting blinds to surprise and kill herds of bison and other large mammals.

<sup>11</sup> Midwest Archeological Center, “Grant-Kohrs Ranch,” 7-8; Floyd W. Sharrock, “An Archaeological Survey of the Grant-Kohrs Ranch National Historic Site,” 6-9, University of Montana Statewide Archaeological Survey, 1973.

<sup>12</sup> Midwest Archeological Center, “Grant-Kohrs Ranch,” 8-9.

## **Spatial Organization**

### **Site Location**

Archeological evidence for the larger region suggests that Archaic peoples settled near mountain slope resources and high terraces during the early part of the period, but began to settle the floodplain lands adjacent to major drainages more intensively towards the middle and late parts of the period.

## **Land Use**

### **Hunting**

Archaic peoples continued to hunt a variety of large game including bison, mountain sheep and goats, alpine caribou, and deer. Herds of bison continued to be trapped and slaughtered as part of a communal activity. Smaller mammals supplemented this diet including but not limited to rabbits, mice, wood rats, fish, and marmots.

### **Gathering**

Archaic peoples continued to gather a variety of regional flora for dietary, medicinal, functional or ceremonial uses. The archeological record suggests that the gathering of flora resources such as berries, pine nuts, bitterroot, biscuit root and camas may have been intensified during this period.

## **Cultural Traditions**

### **Artwork**

Archaic peoples recorded their presence in pictographs and painted rocks throughout the eastern Plateau region. Rock art generally takes four forms, anthropomorphic figures, zoomorphic figures, tally marks, and geometric figures.

## **Circulation**

### **Valley Floors and Mountain Passes**

The circulation networks utilized by Archaic peoples likely followed the natural corridors dictated by regional topography and characterized by valleys and mountain passes. Circulation routes were chosen because of their ability to lead Archaic peoples to and from selected resources. Many of these circulation routes were utilized on a seasonal basis.

## Buildings and Structures

### Caves and shelters

Archaic peoples utilized available caves and other permanent shelters throughout the region.

### Lodge / Tipi

Due to their migratory subsistence patterns, Archaic peoples constructed conical shelters called lodges or tipi. Lodges were constructed against saplings or trees, or constructed of poles and were covered with mat, brush, bark or animal skin. Archeological evidence suggests that these conical lodges were frequently associated with shallow pits and surrounded by small rings of rock. The lodges generally served as nuclear family dwellings.

## Small-Scale Features

### Stone circles

Two and possibly three stone circles located within the park may date to the Middle Plains Archaic period or later. The stones may have been used as weights to hold down a tipi shelter.

### Pit ovens

Archeological evidence suggests that ovens were constructed to roast camas and other flora gathered during the later part of the period, ca. 5,000 to 6,000 BP. Pit ovens are usually found in association with semi-permanent or permanent camp sites.

## Archeological Sites<sup>13</sup>

### Stone circles (24PW1076)

Two, and possibly three stone circles were identified in 1973 at this site. The absence of diagnostic artifacts recovered suggests that the site could have been occupied as early as the Middle Plains Archaic period to as late as the Protohistoric period.

### Lithic scatter (24PW1078)

A prehistoric lithic scatter identified in 1973 with points and point fragments resembling Middle Archaic points of the Columbia Plateau, may date to as early as the Middle Plains Archaic period, or as late as the Protohistoric period.

### Lithic scatter (24PW1079)

A prehistoric lithic scatter identified in 1973 with points and point fragments resembling

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<sup>13</sup> More updated information on archeological resources is available in the new DRAFT Archeological Survey for Grant-Kohrs NHS.

Middle Archaic points of the Columbia Plateau, may date to as early as the Middle Plains Archaic period, or as late as the Protohistoric period.

## Late Prehistoric Period, ca. 1,500 BP to 1700

### Introduction

Some of the most important characteristics of the Late Prehistoric period are the adoption of the bow and arrow and the use of ceramics. The adaptive strategies of Late Prehistoric peoples were expanded to include a more diverse range of seasonal flora and fauna.

### Historical Context

The trend of an increasingly cooler and moister environment from the Archaic period continued well into the Late Prehistoric period. Conifer forests continued to expand at the expense of grassland areas to reach their maximum during the Holocene period. By the end of the Late Prehistoric period, ca. 2,800 BP however, temperatures began to warm considerably and precipitation lessened with the subsequent result that conifer forests retreated. Vegetation began to resemble modern conditions.<sup>14</sup>

By about 1,500 BP, the bow and arrow was in common use throughout the eastern Plateau region. Presence of the bow and arrow is evidenced by small side notched and corner notched points such as the Avonlea, Prairie side-notched, and later ‘Old Women’s’ types. Ceramics and stone bowls also are first seen during the Late Prehistoric period. In general, throughout the Late Prehistoric period, settlement patterns reflect the gradual increase from smaller hamlets to larger, more permanent village sites with a continued focus on lowland drainage areas. Large groupings of house sites become common with many containing evidence for storage pits and ovens. Subsistence during the Late Prehistoric period again reflects a dependence on a broad diversity of local resources with a particular intensification of plant resources. Deer and other medium sized mammals appear to dominate the Late Prehistoric period diet. Bison also begin to become a more reliable faunal resource as their population flourished during the later part of the Late Prehistoric period. Bison jump sites are abundant throughout the larger region.<sup>15</sup>

Late Prehistoric sites are found in great abundance throughout the larger region including the County Line site (24MO197), a site (24DL151) in the Deep Creek – French Creek area, and the Antonsen sites. Within the project area, Sharrock has tentatively dated the four sites 24PW1076, 24PW1077, 24PW1078, and 24PW1079 to the Late Prehistoric or Historic period, “judging from projectile points seen or reported.”<sup>16</sup>

<sup>14</sup> Chatters, “Environment,” 45-46; Chatters and Pokotylo, “Prehistory,” 76-77.

<sup>15</sup> Chatters, “Environment,” 45-46; Chatters and Pokotylo, “Prehistory,” 76-80; Roll and Hackenberger, “Eastern Plateau,” 132-133.

<sup>16</sup> Midwest Archeological Center, “Grant-Kohrs Ranch,” 9-11; Sharrock, “Archaeological Survey,” 10-11.



## Landscape Characteristic by Chronological Period

### **Natural Systems and Features**

#### Hunting and Gathering

Late Prehistoric peoples were intimately familiar with the natural environment surrounding them. Their archeological sites are found in a number of diverse environments and are directly related to the particular resource (e.g. lithic, flora, fauna) located there.

#### Seasonal Migration

Late Prehistoric peoples were necessarily nomadic, following the migrations and habitat of native fauna and harvesting seasonally selected flora.

#### Expansion and Contraction

Late Prehistoric peoples responded to a dramatically changing climate (e.g. milder and wetter, or cooler and drier climates) by altering their subsistence patterns to reflect the abundance or scarcity of available resources.

#### Hunting traps

Late Prehistoric peoples utilized unique natural features such as cliffs, box canyons, and hunting blinds to surprise and kill herds of bison and other large mammals.

### **Spatial Organization**

#### Site Location

Archeological evidence for the larger region suggests that Late Prehistoric peoples settled predominantly on floodplain lands adjacent to major drainages.

### **Land Use**

#### Hunting

Late Prehistoric peoples continued to hunt a variety of large game including bison, mountain sheep and deer. While herds of bison continued to be trapped and slaughtered as part of a communal activity, deer remains appear to dominate the faunal assemblages of major archeological sites. Smaller mammals supplemented this diet including but not limited to rabbits, mice, wood rats, fish, and marmots.

#### Gathering

Late Prehistoric peoples continued to gather a variety of regional flora for dietary, medicinal, functional or ceremonial uses. The archeological record suggests that the gathering of flora resources such as berries, pine nuts, bitterroot,

biscuit root and camas constituted a regular part of their seasonal subsistence patterns during this period.

## **Cultural Traditions**

### **Artwork**

Late Prehistoric peoples recorded their presence in pictographs and painted rocks throughout the eastern Plateau region. Rock art generally takes four forms, anthropomorphic figures, zoomorphic figures, tally marks, and geometric figures.

## **Circulation**

### **Valley Floors and Mountain Passes**

The circulation networks utilized by Late Prehistoric peoples likely followed the natural corridors dictated by regional topography and characterized by valleys and mountain passes. Circulation routes were chosen because of their ability to lead Late Prehistoric peoples to and from selected resources. Many of these circulation routes were utilized on a seasonal basis.

## **Vegetation**

### **Fires set**

Archeological and ethnographic evidence suggests that Late Prehistoric peoples may have set intentional woodland and prairie fires for a number of cultural reasons including forest protection, enhancement of edible or medicinal plant species, to facilitate gathering, to improve pasture and range productivity, to improve the native habitat for animals that were hunted, to clear campsites, or for communication or rituals.

## **Buildings and Structures**

### **Caves and shelters**

Late Prehistoric peoples utilized available caves and other permanent shelters throughout the region.

### **Lodge / Tipi**

Due to their migratory subsistence patterns, Late Prehistoric peoples constructed portable conical shelters called lodges or tipi. Lodges were constructed against saplings or trees, or constructed of poles and were covered with mat, brush, bark or animal skin. Archeological evidence suggests that these conical lodges were frequently associated with shallow pits and

surrounded by small rings of rock. The lodges generally served as nuclear family dwellings.

### **Cluster Arrangements**

#### **Floodplain settlement**

Archeological evidence for the larger region suggests that Late Prehistoric peoples settled predominantly on floodplain lands adjacent to major drainages.

### **Small-Scale Features**

#### **Stone circles**

Two and possibly three stone circles located within the park may date to the Middle Plains Archaic period or later. The stones may have been used as weights to hold down a tipi shelter.

#### **Pit ovens**

Late Prehistoric peoples continued to construct pit ovens to roast camas and other native flora. Pit ovens are usually found in association with semi-permanent or permanent camp sites.

### **Archeological Sites<sup>17</sup>**

#### **Stone circles (24PW1076)**

Two, and possibly three stone circles were identified in 1973 at this site. The absence of diagnostic artifacts recovered suggests that the site could have been occupied as early as the Middle Plains Archaic period to as late as the Protohistoric period.

#### **Lithic scatter (24PW1077)**

A prehistoric lithic scatter identified in 1973 may date to the Late Prehistoric period.

#### **Lithic scatter (24PW1078)**

A prehistoric lithic scatter identified in 1973 with points and point fragments resembling Middle Archaic points of the Columbia Plateau, may date to as early as the Middle Plains Archaic period, or as late as the Protohistoric period.

#### **Lithic scatter (24PW1079)**

A prehistoric lithic scatter identified in 1973 with points and point fragments resembling Middle Archaic points of the Columbia Plateau, may date to as early as the Middle Plains Archaic period, or as late as the Protohistoric period.

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<sup>17</sup> More updated information on archeological resources is available in the new DRAFT Archeological Survey for Grant-Kohrs NHS.

## **The Pend d'Oreille, Flathead, and early European occupation of Western Montana, ca. 1700-1860**

“This is a valley somewhat larger than the Big Hole, ...All the streams by which it is intersected are decorated with groves and thickets of aspen, birch and willow.”

[Warren Ferris, 1831]

### **Introduction**

Between the Protohistoric and Contact periods, the Deer Lodge Valley was transformed from a major thoroughfare to and from seasonal hunting and gathering grounds for Pend d'Oreille, Flathead, Shoshone and other American Indian groups, into an area that was explored, trapped and subsequently exploited for its lush grass ranges by European Americans. By the late 1850s, Johnny Grant had begun to winter his growing cattle herd in the Deer Lodge Valley. His presence initiated the first permanent European American settlement within the larger area.

### **Historical Context**

Prior to 1700, the Flathead originally occupied the western edge of the northern Plains from the Continental Divide to Billings, Montana and north of Yellowstone National Park to the Missouri River. The Pend d'Oreille originally occupied the eastern edge of the Plateau, west of the Continental Divide but predominantly centered on the Clark Fork River and its tributaries. The Flathead depended predominantly upon hunting buffalo, usually driving them into lanes, corrals or over cliffs, prior to the horse. The Pend d'Oreille subsisted on hunting and gathering. Deer, antelope, mountain goats and smaller mammals were regularly hunted. Fish were a smaller although important part of their diet as well. Plants, roots and berries, including bitterroot, camas, serviceberries, elderberries, chokecherries and huckleberries were a significant part of the Flathead and Pend d'Oreille diets. Conical tipis or lodges made of poles covered in skin, brush, bark or grass mats served as portable shelters.<sup>18</sup>

During the Protohistoric / Contact period, ca. 1700 – 1800, two European influences dramatically impacted the American Indian residents of the eastern Plateau region. Disease, in general, and smallpox epidemics in particular, swept through native populations ultimately devastating cultural groups. Historians estimate that the first major epidemic in North America impacted American Indian populations in the late sixteenth century. Smallpox was most likely introduced to American Indians of the northwest by ships that frequented the west coast trading for furs during the early eighteenth century. Numerous other epidemics swept the northwest throughout the late eighteenth and nineteenth centuries. Some estimates place the population decline of the Flathead and Pend d'Oreille at 45 percent between 1770 and 1805.<sup>19</sup>

By the early 1700s at the latest, the Shoshone Indians had acquired horses from the Utes who had obtained them from the Spanish. Utilizing horses, the Shoshone swept over most of Montana and helped to establish the nomadic Plains Indian culture that was centered on hunting the buffalo. The Flathead and Pend d'Oreille likely had horses by 1730 at the latest, acquiring them by trade. Firearms were not likely acquired until the last quarter of the eighteenth century through the

<sup>18</sup> Carling I. Malouf, “Flathead and Pend d'Oreille,” in *Handbook of American Indians*, Volume 12, Plateau, Deward E. Walker Jr., ed. (Washington D.C.: Smithsonian Institution Press, 1998), 297-299.

<sup>19</sup> Deward E. Walker and Roderick Sprague, “History Until 1846,” in *Handbook of American Indians*, Volume 12, Plateau, Deward E. Walker Jr., ed. (Washington D.C.: Smithsonian Institution Press, 1998), 138; Malouf, “Flathead and Pend d'Oreille,” 305.

Hudson's Bay Company and not in any great quantity until the early nineteenth century. During the early eighteenth century, the Blackfeet moved into the northern Plains with horses and firearms in an attempt to expand their territory. As a result, the Flatheads were forced to retreat westward into the Rocky Mountains and eastern Plateau region. By the late eighteenth century, the Blackfeet had established their dominance in the western Plains and began trading and raiding forays into the eastern Plateau region. The impact of the horse also influenced political boundaries and tribalization as the displaced tribes of the western Plains and eastern Plateau region, particularly the Flatheads, Pend d'Oreille, and Kootenai, formed multi-tribal confederacies in an attempt to combat the Blackfeet threat. "By 1800 the Northern Plains had become a scene of perpetual equestrian conflict."<sup>20</sup>

In 1670, the Hudson's Bay Company was organized as the first English fur trading company in the new world. They received a Royal Charter from the British Crown that enabled them to have control over most of what would eventually become Canada. This single event was instrumental in directing trade and contact with American Indians for the next century. By the late seventeenth century they had established a trading house in Montreal and throughout the first three quarters of the eighteenth century, slowly began to expand westward establishing trading relationships with American and Canadian Indians. In 1779 the North West Trading Company, the first serious rival to the Hudson's Bay Company, was established. North West fur traders immediately extended their trade network further westward than the Hudson's Bay Company. As a result, the balance of the fur trade from the last quarter of the eighteenth century through the first quarter of the nineteenth century was dominated by the North West Trading Company.

The first recorded exploration of Montana by Europeans was accomplished by Meriwether Lewis and William Clark. In 1805, Lewis and Clark entered what would one day become northeast Montana following the Missouri River westward to the Rocky Mountains. They eventually entered what would become southwest Montana south of the project area and Deer Lodge Valley. Lewis and Clark reported that the American Indians they encountered had interacted with white men for some time and possessed large herds of horses, various trade goods, and other European items. This suggests that during the second half of the eighteenth century, fur traders of European descent may have passed through the area. Shortly after Lewis and Clark, North West Company fur traders under the direction of David Thompson entered the Rocky Mountains in 1807 and set up trading posts or 'houses' in the mountain valleys of the Columbia River drainage. Despite the establishment of the American Fur Company in 1811 and the Rocky Mountain Fur Company in 1823, the North West Company soon came to monopolize trade in the Columbia River basin. By 1821, the North West Company and Hudson's Bay Company had merged to form the dominant fur trading organization on the continent. The international fur trade in the northwest flourished through the first quarter of the nineteenth century, but during the second quarter of the nineteenth century beaver became scarce and by the 1840s there was little profit to be obtained.

One of the earliest descriptions of the project area vicinity comes from Warren Ferris, who as a trapper for the American Fur Company traveled through the Deer Lodge Valley in 1831 describing the local wildlife, the Warm Spring mound (See Figure 2-1) and what is now the Clark Fork River.

We crossed a mountain to the Deer Lodge Plains. This is a valley somewhat larger than the Big Hole, and like that surrounded by mountains, generally, however low, barren and naked, except to the south and east where lofty snow clad peaks appear. All the streams by which it is intersected are decorated with

<sup>20</sup> Walker and Sprague, "History Until 1846," 138-139; Malouf, "Flathead and Pend d'Oreille," 305.

groves and thickets of aspen, birch and willow, and occasional clusters of currant and gooseberry bushes. The bottoms are rich and verdant, and are resorted to by great numbers of deer and elk. The several streams unite and form “La Riviere des pierres a fleches” thus named from a kind of semi-transparent stone found near it, formerly much used by the Indians for making points of arrows. This river is one of the sources of Clark’s River, and flows through the valley to the northeastward. The valley owes its singular but appropriate name to a natural curiosity situated near the river a few miles from the eastern side. The curiosity referred to is a semi-spherical mound some 50 paces in circumference and fifteen feet high, rather flattened at top, and covered with turf and a sickly growth of yellow grass. ... These waters are slightly impregnated with salt, which quality renders the place attractive to deer and it is seldom without visitors of this description ... Clouds of vapor are continuously emanating from the mound, which at a distance on a clear cold morning might readily be mistaken for smoke --- the mound itself has much the resemblance of an Indian cabin, and hence the name by the valley is designated.<sup>21</sup>

Ferris also mentioned passing a camp of Pend d’Oreilles consisting of approximately 100 ‘lodges’ in the Deer Lodge Valley.<sup>22</sup>

Another trapper who worked for the Hudson’s Bay Company, John Work, also visited the Deer Lodge Valley in the same year. He camped on the Deer Lodge River and noting the relative scarcity of beaver commented that the area appeared to have been trapped out.<sup>23</sup>

In 1841 Father Pierre Jean de Smet, a Jesuit priest, led wagons and oxen into the Bitterroot Valley and constructed the St. Mary’s mission by 1846. The mission closed and was purchased by 1850. De Smet also traveled through the Deer Lodge Valley and named the Deer Lodge River the “St. Ignace” River. De Smet described the Warm Springs cone or mound in Deer Lodge Valley.

[It is] accessible on one side only, and is formed of a stony crust deposited by the spring which has risen as the mound has grown. The water bubbles up on the top, and escapes through a number of openings at the base of the mound, the circumference of which seems to be about 60 feet. The waters at the base are of different temperatures – hot, lukewarm and cold—though but a few steps distant from one to another. Some indeed are so hot that meat may be boiled in them. We actually tried the experiment.<sup>24</sup>

During the early 1840s, the first small numbers of American settlers began to arrive in the northwest via the Oregon Trail. The route they took passed through the southern Plateau south of the Columbia River through present-day southern Idaho. By 1843, settlers passed through the northwest in the thousands. Between 1845 and 1847, it is estimated that nearly 10,000 emigrants traveled the Oregon Trail. As a result of the increasing numbers of immigrants to the Oregon Country, Canada and the United States agreed to the settlement of their borders in 1846. The

<sup>21</sup> Warren A. Ferris, *Life in the Rocky Mountains: A Diary of Wanderings on the sources of the rivers Missouri, Columbia, and Colorado, from February 1830 to November, 1835* (St. Louis, 1844), 107-111, 162, 166, 170-178, 231, 321-324.

<sup>22</sup> Virginia Lee Speck, “The History of the Deer Lodge Valley to 1870” (Masters Thesis, Montana State University, 1946), 5-6.

<sup>23</sup> Speck, “History”, 20-21.

<sup>24</sup> Speck, “History,” 3-5; Anna Fay Rosenberg, “Hard Winter Endurance: Conrad Kohrs’ Cattle Raising Operation, 1887-1900” (Masters Thesis, University of Montana, 1996), 5-6.

Oregon Territory, which included the western part of what would become Montana, was established two years later.<sup>25</sup>

By 1842, Capt. Richard Grant, a Canadian of Scottish and French ancestry and a veteran of the Northwest fur trade, was reassigned to Fort Hall (now in Idaho) as factor by the Hudson's Bay Company. As factor, he traded British goods for pelts with the local Indians. Within a year of his arrival, significant numbers of immigrants passed through the Fort Hall area. Seizing an opportunity, Richard Grant began to trade horses and flour for thin and tired cattle. He then grazed the cattle in southwestern Montana until they had recovered their weight and health and then sold them back to the continuing stream of emigrants at a profit. By 1851, Richard Grant had retired as factor but continued to remain in the Fort Hall area trading with both emigrants and local Indians.<sup>26</sup>

After purchasing St. Mary's Mission in the Bitterroot Valley from the Jesuits and establishing a fort there in 1850, Major John Owen entered the Deer Lodge Valley a year later describing its flora and fauna.

[We] came over to Deer Lodge fork, trav'd in all today about 15 miles. Caught some 50 fine specked trout. One of our Lodges turned back this morning leaving us number now six lodges. We are camped on D. L. fk. Passed one of the Indian roads to buff.[alo?] called Vermillion Road. ...Raised camp late this morning it being rainy we crossed into D. L. fk. Found D. Lodge. It is quite a small butte in the prairie with boiling spring on the top. I know nothing of the qualities of the water [sic].<sup>27</sup>

In 1853, western Montana came under the administration of the newly created Washington Territory. During the same year, Isaac Stephens was appointed by Congress to make a survey for a possible northern railroad route. Construction was postponed for a number of years due to regional Indian wars. Four years later, Congress appropriated money for the construction of the Walla-Walla to Fort Benton wagon road, the precursor to the railroad route. The construction of the military road was begun in 1859 and was supervised by John M. Mullan. The Mullan road, as it came to be called, passed just north of Deer Lodge City and was completed in 1863. In passing through the Deer Lodge vicinity, Mullan purchased 30 head of cattle from Johnny Grant.<sup>28</sup>

Sometime in the late 1850s, Richard Grant and his son John Francis Grant, camped near Dillon, Montana in an effort to avoid what they perceived as an impending war due to a growing conflict between U.S. Government and the Mormons. John or 'Johnny' joined his father and continued to carry on trading for cattle mostly with Mormon emigrants. By 1857, Johnny wintered with his growing cattle herd in the Deer Lodge Valley and the following year Richard Grant moved to the Bitterroot Valley near present day Missoula. He later died in Walla Walla in June of 1862.<sup>29</sup>

<sup>25</sup> Walker and Sprague, "History Until 1846," 148; Stephen Dow Beckham, "History Since 1846," in *Handbook of American Indians*, Volume 12, Plateau, Deward E. Walker Jr., ed. (Washington D.C.: Smithsonian Institution Press, 1998), 149.

<sup>26</sup> Douglas C. McChristian, *Ranchers to Rangers: An Administrative History of Grant-Kohrs Ranch National Historic Site* (National Park Service, Rocky Mountain Cluster, 1977), 1-2.

<sup>27</sup> Speck, "History," 31-32.

<sup>28</sup> Speck, "History," 106, 108; Beckham, "History Since 1846," 157; Marilyn Wyss, *The Origins and Development of the Road and Trail System in Montana* (Helena: Montana Department of Transportation, 1992), 4; Lyndell Meikle, ed., *Very Close to Trouble: The Johnny Grant Memoir* (Pullman: Washington State University Press, 1996), 76.

<sup>29</sup> McChristian, *Ranchers to Rangers*, 3; John Albright, *Historic Resources Study and Historic Structure Report Historical Data, Kohrs and Bielenberg Home Ranch, Grant-Kohrs Ranch National Historic Site, Montana* (Denver: Denver Service Center, National Park Service, 1977), 1; *Washington Statesman* (Walla Walla, June 28, 1862).

Granville Stuart relates that he and his brother James were the first to discover gold in what would become Montana, a strike on Gold Creek east of present day Drummond. It lay inactive until 1860 when Henry Thomas, aka 'Gold Tom,' expanded the placer mine. A small settlement called American Fork soon grew up around the gold strike. Regardless of the accuracy of Stuart's account, it is certain that gold was discovered in Bannock, Montana in 1862 when a strike was recorded on Grasshopper Creek, a tributary of the Beaverhead River.<sup>30</sup>

In 1859 Johnny Grant moved to the Deer Lodge Valley, settling at the confluence of the Deer Lodge River and Little Blackfoot Creek only twelve miles north of the Grant-Kohrs Ranch National Historic Site project area. He built a "rough shack of cottonwood logs" there the same year. The following spring, a second log house was built in the same location by workmen Grant hired.<sup>31</sup>

### Landscape Characteristic by Chronological Period

#### **Natural Systems and Features**

##### Hunting and Gathering

Flathead and Pend d'Oreille Indians and early European fur traders and explorers were intimately familiar with the natural environment surrounding them. Their archeological sites are found in a number of diverse environments and are directly related to the particular resource (e.g. lithic, flora, fauna) located there.

##### Seasonal Migration

Flathead and Pend d'Oreille Indians were necessarily nomadic, following the migrations and habitat of native fauna and harvesting seasonally selected flora. With the acquisition of the horse in the late seventeenth century, traditional seasonal migrations were made easier.

#### **Spatial Organization**

##### Site Location

Flathead and Pend d'Oreille Indians appear to have settled along the Deer Lodge River and its drainages during fall and winter. These settlements were dispersed and may have represented many small nuclear families coming together for the winter season. Spring and summer campsites would be located near seasonal resources in more diverse topographic regions of the eastern Plateau.

<sup>30</sup> Michael P. Malone and Richard B. Roeder, *Montana: A History of two Centuries* (Seattle: University of Washington Press, 1976), 50-51; Granville Stuart, *Prospecting for Gold: From Dogtown to Virginia City, 1852-1864*, Paul C. Phillips, ed. (Lincoln: The University of Nebraska Press, 1977), 162. Note: Granville Stuart's story of being the first to discover gold in Montana is disputed by some.

<sup>31</sup> McChristian, *Ranchers to Rangers*, 3; Albright, *Historic Resource Study*, 1; Meikle, *Very Close to Trouble*, 72-74.



## Land Use

Hunting	Flathead and Pend d'Oreille Indians depended on hunting buffalo, antelope, mountain sheep and goats and other smaller mammals. Fish were an important although not dominant part of their diet as well.
Gathering	Flathead and Pend d'Oreille Indians practiced traditional seasonal gathering activities harvesting a variety of roots, berries and nuts including bitterroot, camas, serviceberries, elderberries, chokecherries and huckleberries.
Trapping	Early European fur traders and trappers explored the Deer Lodge Valley and regional vicinity in the pursuit of beaver. Much of the beaver's native habitat in the eastern Plateau region was trapped during the eighteenth and early nineteenth century.
Exploration	In an effort to find an overland route to the west coast, Lewis and Clark and other explorers traveled through the eastern Plateau region of what would become western Montana.
Open Range / Grazing	In 1857, Johnny Grant wintered his cattle herd in the Deer Lodge Valley, the first event where non-native fauna had grazed within the project area vicinity.
Settlement	In 1859, Johnny Grant permanently settles in the Deer Lodge Valley at the confluence of the Deer Lodge River and the Little Blackfoot Creek.

## Circulation

Trails / Paths	By this period well-established Indian trails, seasonal migration routes taken to regional flora and fauna resources, could be seen by the first European traders and explorers to enter the Deer Lodge Valley.
Trails / Paths	Early European fur traders established their own and sometimes utilized earlier American Indian trails to lead them to and from known beaver habitat. These trails generally followed the region's major and minor drainages.

## **Buildings and Structures**

### **Lodge / Tipi**

Due to their migratory subsistence patterns, Flathead and Pend d'Oreille Indians and early European fur traders and explorers constructed portable conical shelters called lodges or tipis. Lodges were constructed against saplings or trees, or constructed of poles and were covered with mat, brush, bark or animal skin. Archeological evidence suggests that these conical lodges were frequently associated with shallow pits and surrounded by small rings of rock. The lodges generally served as nuclear family dwellings.

### **Log cabin**

Johnny Grant builds the first recorded permanent structure by a European in the Deer Lodge Valley, a “rough shack of cottonwood logs” at the confluence of the Deer Lodge River and Little Blackfoot Creek in 1859. The following year, a second log house was built adjacent to the first.

## **Small-Scale Features**

### **Pit ovens**

Flathead and Pend d'Oreille Indians and early European fur traders and explorers constructed pit ovens to roast camas and other native flora and fauna. Pit ovens are usually found in association with semi-permanent or permanent camp sites.

## **The Establishment of the Johnny Grant Ranch, the settlement of Cottonwood, and incipient stock raising, 1860-1866**

“My ranch situate on Cottonwood Creek.”  
Johnny Grant

### **Introduction**

With the construction of the first log structures on a bluff overlooking the Clark Fork River in 1861, Johnny Grant initiated the development of the larger home ranch. His improvements included the construction of a domestic core and surrounding ranching outbuildings, the development of a preliminary irrigation system and experimentation with growing grain crops.

### **Historical Context**

After settling in the Deer Lodge Valley, Grant immediately noticed that the Valley was an often used trading and hunting route. “There were six tribes of Indians who passed my place twice every year, in the spring and fall.” Granville Stuart, another early settler of the Deer Lodge Valley, echoed Grant’s observations. “Villages of combined Nez Percés, Yakimas, Coeur d’Alenes, and Flatheads ...passed every fall on their way to the plains of the Missouri and Yellowstone to spend the winter hunting buffalo.”<sup>32</sup>

By the summer of 1860, Grants cattle herd had become large enough to allow him to drive them to California to be sold. In doing so, Grant became the first recorded rancher in Montana to sell cattle in a distant market.<sup>33</sup>

In 1860, Grant had persuaded some other traders to settle near him in the Deer Lodge Valley. In Grant’s own words, he “managed to induce ten or twelve families of traders to come with me. They were Descheneau, Leon Quesnell, Louis Demers, David Contois, Fred Burr, the Stuart Boys, the Cosgrove boys, Jackson, Jack Meek and two sons of my old friend, Michand Leclair. They settled on Cottonwood Creek about eleven miles from the Little Blackfoot.” The small settlement was given the name of Cottonwood, due to the abundance of that type of tree in the area.<sup>34</sup>

The following year, Grant decided to move from his small ranch at the Little Blackfoot, closer to the larger settlement of Cottonwood. He built two small log structures adjacent to one another just north of town. In 1862, the structures were described as “a good sized log House, or rather two joined together.”<sup>35</sup>

In 1862, Grant hired several craftsmen to build a new, larger house (See Figure 2-2).

In the fall of 1863 [1862], I built a house in Cottonwood, afterwards called Deer Lodge. It cost me a pretty penny. I hauled lumber from the Flathead Reserve which was one hundred and fifty miles away. The house was made of hewed logs with posts in the corner. It was sixty-four feet long, thirty feet wide and sixteen

<sup>32</sup> Speck, “History,” 11; Meikle, *Very Close to Trouble*, 72.

<sup>33</sup> Albright, *Historic Resource Study*, 2; Meikle, *Very Close to Trouble*, 71.

<sup>34</sup> Meikle, *Very Close to Trouble*, 76; McChristian, *Ranchers to Rangers*, 3; Albright, *Historic Resource Study*, 2-3.

<sup>35</sup> Meikle, *Very Close to Trouble*, 81 notes. These two log structures are now incorporated as part of the Bunkhouse Row, H-S2.

feet high. I paid five dollars per day to McLeod, the hewer, and to the carpenter, Alexander Pambrun, I paid nine dollars per day. ...I then went with a wagon and hauled plenty more of this kind [limestone] and burnt it. Now that I had the lime, a plasterer was needed. I got one and he charged me one hundred fifty dollars to plaster the first story, but it was very well done. I went back to the house twenty years after, and the plaster was as sound as ever.<sup>36</sup>

By 1862, the small settlement of Cottonwood, Grant's extensive new ranch, and the unusual grouping of inhabitants who resided there must have created a curious picture. A visitor to the town during this period reflected on the strange but peaceful appearance.

We crossed the Deer Lodge River, a wide and fine stream at this point. Nooned at 11 a.m. ...I saw several hundred cows belonging to Grant, the finest I have seen in America.<sup>37</sup>

Here in this luxuriant grassy valley, abounding with game and fish – the finest brook trout I ever saw – possessed of large herds of cattle and horses, surrounded by his half breeds, Indian servants, and their families, with a half dozen old French mountaineers and trappers who have married Indian women for his neighbors, Grant lives in as happy and free a manner as did the ancient patriarchs.<sup>38</sup>

To one visitor, the town still retained this surreal appearance two years later as it was described as consisting of "six log cabins, some peacefully ruminating cows, a stray vaquero, and a lot of half-breed papooses, engaged in making mud pies."<sup>39</sup>

Conrad K. Kohrs first arrived in the Deer Lodge Valley in 1862 en route to gold prospecting in Idaho. He describes his first impression of the Deer Lodge Valley.

About twenty miles above Deer Lodge our trail led along a river of the same name. It was a beautiful stream, the water clear and sparkling and alive with the finest trout, and the same was true of every small stream we crossed. The valley was full of antelope and many herds of fat cattle belonging to the mountaineers who lived there. ...We made camp on Cottonwood just behind the present Court House in Deer Lodge and intended of prospecting in different directions in the mountains. ...There was little money in the crowd and no provisions in the country except beef. Game was plentiful but no guns or pistols. We were obliged to live on fish, not even having grease to fry them in. It was a case of boiled fish varied by an occasional baking in the ashes. ...The same week we broke camp and went down to Gold Creek, where we found quite a few men prospecting and a few working sluices.<sup>40</sup>

The first major gold rush in the Montana Territory took place in the early 1860s. By 1862 Bannack City, a mining camp, had grown up around a gold claim and had a population of 400-500 by the fall. Conrad Kohrs eventually settled temporarily in Bannack and set up a butcher

<sup>36</sup> Meikle, *Very Close to Trouble*, 86.

<sup>37</sup> "Diary of James Harkness, of the Firm of LaBarge, Harkness, and Company: St. Louis to Fort Benton by the Missouri River and to the Deer Lodge Valley and Return in 1862" (Reprint 1966).

<sup>38</sup> Meikle, *Very Close to Trouble*, 82 notes.

<sup>39</sup> Speck, "History," 69.

<sup>40</sup> Conrad K. Kohrs, *Conrad Kohrs: An Autobiography* (Deer Lodge: Platen Press, 1977), 19-20.

shop working for Hank Crawford. When Crawford abandoned him, he partnered with Ben Peel and moved to another mining camp at Alder Gulch in 1863. The town of Virginia City soon grew up around this gold claim.<sup>41</sup>

Although not recorded until six years later, in 1862 a group of men calling themselves the Deer Lodge Company, including W. B. Dance, James Stuart, John S. Pemberton, Granville Stuart, Leon Quesnelle, Louis Decheneau, and Frank Truchet, located 640 acres for the town of Deer Lodge City. During the same year, a Captain Joseph LaBarge and partners set up a merchant store in Cottonwood. A year later, La Barge, John S. Pemberton and Leon Quesnell, platted a town on Cottonwood Creek and named it LaBarge City (See Figure 2- ). However the small town's name reverted to Cottonwood after LaBarge's business was abandoned a short time later. A pre-emption claim was filed in October 1864 by the Deer Lodge Town Company for 320 acres. It did not however fulfill the requirements of the law.<sup>42</sup>

In 1863, Idaho Territory was created out of Washington Territory. It embraced what is now the entire state of Montana. At the same time, Deer Lodge County was also created. It is during this period, ca. 1863-1864, that the town of Cottonwood most likely adopted the name of Deer Lodge City.<sup>43</sup>

In an effort to find a more direct northern route to the gold regions of Montana, Capt. James L. Fisk organized a second expedition in 1863. Upon his arrival in the Deer Lodge Valley, he described Johnny Grant's new ranch and the small but growing ranching and agricultural town.

Traveled through the valley of the Little Blackfoot and over the mountains to Livingstone Creek descending into the Deer Lodge River near Johnny Grants ranch. ...Mr. Grant owns some 4,000 head of cattle and 2,000 to 3,000 ponies. The miners of Virginia City and Bannock get most of their meat from him, and he trades ponies at Salt Lake for flour, and c. He is reported to be worth \$300,000 or \$400,000. Cottonwood City is springing up near here on the Deer Lodge. It contains about 30 houses and 150 inhabitants. Messrs. Higgins and Moran have a large store, with supplies of all kinds for the miners. The Deer Lodge is a fine stream of pure water running to the north. After receiving the Little Blackfoot it takes the name of the Hell Gate River. The Deer Lodge Valley is an admirable tract for grazing and farming. Wheat and oats grow luxuriantly at Dempsey's farm, and vegetables of all kind are raised. The grass is sweet and excellent, and there is fine timber on the mountain sides. The climate is warm and mild; snow seldom falls to more than the depth of 2 to 3 inches, and melts during the day. Grant's cattle range the valley the whole winter; many of these animals are so fat that their appearance is similar to that of Berkshire shoats fed for the fair. Some of my party of 1862 left work cattle here in the fall that were thin and worn out with the journey across the Plains; in April they were very fat, and were sold for beef cattle. Gold has been discovered here not far from the American Fork of Hell Gate River. The claims paid about \$10 per day to the man, but were deserted for the Stinking water diggings. ...There are plenty of trout in this stream; 2 or 3 of our party caught 60 ...in an hour or two.<sup>44</sup>

<sup>41</sup> Malone, Michael P. and Richard B. Roeder, *Montana: A History of two Centuries* (Seattle: University of Washington Press, 1976), 50-51; Kohrs, *Autobiography*, 22-27.

<sup>42</sup> Speck, "History," 66-67; The Deer Lodge River, Deer Lodge County, and Deer Lodge City were apparently named for the natural Warm Springs Mound called 'Deer Lodge' because of its conical lodge-like shape and the fact that deer were attracted to its salt encrusted sides as a salt lick.

<sup>43</sup> Speck, "History," 67.

<sup>44</sup> James L. Fisk, *Expedition of Captain Fisk to the Rocky Mountains* (Washington, 1864), 26-27.

Ca. 1862, it appears that Johnny Grant began to cultivate one or more fields adjacent to his ranch house, most likely located in the rich bottomlands between his ranch and the Deer Lodge River. Water rights records document that Grant established three separate claims during this year, one from the Clark Fork River, and two others from unnamed springs. These water claims were used for both stock watering and irrigation purposes. In his memoirs, Grant notes at least two consecutive years of planting crops and vegetables on his land ca. 1862-1863.

[I decided] to put in a crop on a larger scale than before. ...A couple of acres of oats that I put in the year before did so well that I was encouraged to try some more. I paid five dollars a bushel for seed oats. I tried a garden too. A French-Canadian there who was gardener proposed to make a garden on shares if I bought the seeds. I agreed. Vegetables were an unknown luxury there at the time, so he paid twenty dollars for a pound of onion seed and other seeds in proportion. It cost me \$200 for garden seed. That summer, Montana was visited by a plague of Colorado beetles or grasshoppers. They devoured everything green as soon as it showed itself above the ground. I was completely disgusted and made up my mind to sell and leave the country.<sup>45</sup>

It is likely that the first irrigation ditches within the project area were associated with the Clark Fork River and were excavated and put into operation between 1862-1863. A number of references to irrigation ditches dug in association with the cultivation of small fields suggest that dry farming was not a practical alternative in the Deer Lodge Valley. Other evidence supports some form of crop irrigation within the project area. By the mid-1860s at the latest, Grant had purchased a threshing machine that served the larger Deer Lodge Valley. On occasion, Grant sold the crops that he grew. In 1865, Conrad Kohrs also purchased oats from Grant and planted 25 acres of "recently broken land." It is not clear from the description above where Grant's vegetable garden was located, although it is possible that it may have been below the bench on the southern side of his residence in order to take full advantage of the southern exposure.<sup>46</sup>

By 1864, Conrad Kohrs had begun to expand his regional butchering operations with Ben Peel, eventually entering into partnerships with his three half-brothers, Charles, Nick and John Bielenberg, who had arrived in Montana. During the same year he made his first substantial purchase of beef cattle, buying 400 head and wintering them at Race Track Creek in Deer Lodge Valley. These cattle supplied his numerous butchering shops for the subsequent year and began his cattle raising business. In addition to cattle, Kohrs' autobiography mentions the purchase of a herd of several thousand Southdown sheep. Southdown sheep were valued for their ability to produce a large quantity of high quality lambs and were often used in cross-breeding with other sheep species to produce meatier lambs.<sup>47</sup>

The Territory of Montana was created in 1864. Deer Lodge County, Montana was organized shortly thereafter with the town of Silver Bow as the county seat. Three years later in 1867, the county seat was moved to Deer Lodge City.<sup>48</sup>

<sup>45</sup> Meikle, *Very Close to Trouble*, 134.

<sup>46</sup> National Park Service, "Cultural Landscape Inventory (CLI)" (Revised Draft 1/21/1997), List of Features; Kohrs, *Autobiography*, 41-42.

<sup>47</sup> Kohrs, *Autobiography*, 38-39; Rosenberg, "Hard Winter," 12-13; Albright, *Historic Resource Study*, 5. Kohrs era sheep were kept in the Big Hole and Beaverhead Valley, not at the Home Ranch.

<sup>48</sup> Kohrs, *Autobiography*, 53; Speck, "History," 71.

By the end of the Civil War, the first detailed textual and pictorial descriptions of the Johnny Grant ranch house (HS-1) appear. In December of 1865, a Montana Post article described it as a “dwelling house, which is large and two storied, is by long odds the finest in Montana. It appears as if it had been lifted by the chimneys from the bank of the St. Lawrence, and dropped down in Deer Lodge Valley. It has twenty-eight windows, with green painted shutters, and looks very pretty. . . . Johnny Grant had the machinery for a grist mill, and his threshing machine works well.”<sup>49</sup>

A drawing of the Grant ranch house (HS-1) from the southeast by Granville Stuart was done in 1865 (See Figure 2-2). It depicts the ranch house on the southern end of a grassy bench above the Clark Fork River floodplain. A generally open landscape surrounds the new residence on all sides. Two tipis and what appear to be a trough and unidentified frame apparatus (possibly for stretching hides) are present on the front or east lawn of the house. To the north of the ranch house are several wagons and carts and what appear to be two distinct log structures oriented in an east-west direction, possibly the earliest portions of the bunkhouse (HS-2). At the foot of the butte west of the ranch house, a fence of unknown type can be made out suggesting that distant pastures or fields were fenced. The immediate domestic compound is surrounded by a traditional jack-leg fence running in a north-south direction. The jack-leg fence was constructed without digging holes and usually consisted of a lodgepole pine lying between two pairs of ‘legs.’ This type of fencing was typical of the northwest frontier. No trees are noted to be planted anywhere around the ranch house. Southwest of the house there appear to be groupings of small trees or saplings, presumably lining the edges of the Deer Lodge River.<sup>50</sup>

Conrad Kohrs continued his extensive butchering and emerging cattle ranching business. Kohrs’ business of supplying miners appears to have entailed more than butchering cattle. By the mid-1860s he also acquired hogs from local and regional suppliers, fattened them, and then sold the pork. Leicester sheep were also purchased, but Kohrs soon found out there was little demand for wool or mutton. Con & Peel also sold other items, including candles they had made from tallow. In 1865, Kohrs took advantage of the numerous gold strikes within the larger region. Borrowing money, he purchased as much cattle as possible and soon built a monopoly on the beef trade. “In the Spring of ’65 I had all the beef in the country in my hands.”<sup>51</sup>

By the middle of the decade, the growth of Deer Lodge City reflected the dispersed market created by the gold rush and the number of regional mining camps. In 1865, Deer Lodge City was described as containing approximately 125 log cabins with an enlarged business district including 3 to 4 stores, and several hotels, a brewery, a saloon, a cabinet-shop, a few butcher shops, a grist mill, and three steam sawmills. Placer gold mining in Montana was to reach its peak ca. 1866, declining slowly until the end of the decade when it had nearly disappeared. Con and Peel, and later Kohrs and Bielenberg, eventually lost the large local beef market when most miners moved to strikes in other states. Consequently small mining towns, such as Virginia City, went from a population of 3,000 to 500 in a week.<sup>52</sup>

Only a year after its creation, Montana passed a law regulating all marks and brands in the Territory. The law reflects the fact that cattle ranching was gradually becoming a substantial business in the fledgling Territory. It is during 1865 when Conrad Kohrs began to formally brand

<sup>49</sup> Meikle, *Very Close to Trouble*, 13?.

<sup>50</sup> Granville Stuart, “Residence of John Grant, near Deer Lodge City, MT, August 6, 1865, Looking northwest. No. 4,” in *Diary & Sketchbook of a Journey to ‘America’ in 1866, & Return Trip up the Missouri River to Fort Benton, Montana*, Reprinted from the *Virginia City Montana Post* of January, 1867 (Los Angeles: Dawson’s Book Shop, 1963), np.

<sup>51</sup> Kohrs, *Autobiography*, 37-38, 41-42.

<sup>52</sup> Speck, “History,” 70; Malone and Reader, *Montana*, 55; Interview with Con Warren, May 9, 1985, np.

his cattle. "The system was the outcome of necessity. The whole country was community range and cattle were mixed together. Agriculture did not exist and fences were unknown so that we were compelled to brand to identify our property."<sup>53</sup>

Despite living in the Deer Lodge Valley for only 7 years, by 1866 Johnny Grant had decided it was time to move on. His memoirs suggest that he was tired of the "rough" country and the laws and officers that came with government. Sometime during 1865, Grant constructed an 80 x 30 foot "livery stable." Several tons of hay was stored in the loft. In February of 1866, it was destroyed by fire.<sup>54</sup>

A FIRE occurred in our place, on last Saturday night, resulting in the total destruction of a fine, large barn, with a quantity of hay, the property of our well known townsman, Johnnie Grant, Esq. The loss is about \$3,000. Misfortunes never come singly – and never was this saying more aptly applied than in the case of Mr. G. He has lost considerably in commercial enterprises, during the last year; and a few days since, almost his entire stock of liquors – some seven hundred gallons – was seized by the United States revenue officer here. Johnnie declares that he will clear up and go among the Indians again if his luck don't change.<sup>55</sup>

### Landscape Characteristics by Chronological Period

#### **Natural Systems and Features**

##### Water resources

Water sources were important to early European settlers and frequently dictated where permanent settlement would occur. Water served early irrigation purposes and also provided a potable drinking supply for both humans and animals.

##### Timber resources

Early European settlers used the abundant timber resources, such as cottonwood and willow trees located along area drainages, and other non-deciduous species located on mountain sides surrounding the Deer Lodge Valley for use in their settlements.

#### **Spatial Organization**

##### Site location

Johnny Grant occupied lands that were adjacent to but located above a major drainage on a bluff or bench.

##### Fields

Fields under cultivation were placed adjacent to or nearby local drainages due to the richer bottomland soils, and the ability to irrigate

<sup>53</sup> Albright, *Historic Resources Study*, 5; Conrad Kohrs, "A Veteran's Experience in the Western Cattle Trade," *The Breeder's Gazette* (December 18, 1912), 1329.

<sup>54</sup> Meikle, *Very Close to Trouble*, 129, 134.

<sup>55</sup> *Montana Post* [Virginia City, Montana] February 17, 1866 as cited in Meikle, *Very Close to Trouble*, 129-130 notes.



crops. Dryland farming was not a viable option in western Montana.

## **Land Use**

### **Hunting**

Flathead and Pend d'Oreille and other Indians and European settlers hunted large and small sized game in the Deer Lodge Valley vicinity.

### **Gathering**

Flathead and Pend d'Oreille and other Indians continued to use the Deer Lodge Valley as one of many resources to gather regional flora for dietary, medicinal, functional or spiritual uses.

### **Open Range / Grazing**

Johnny Grant, Granville Stuart and other early European settlers used the Deer Lodge Valley vicinity as an open range upon which to graze their growing cattle herds.

### **Agriculture**

Between 1860 and 1866, early European settlers practiced agriculture in irrigated fields. Records document the cultivation and sale of wheat, oats and other grains on a small scale.

### **Settlement**

The small permanent settlement of Cottonwood was established in 1860 at the confluence of the Deer Lodge River and Cottonwood Creek.

### **Trading**

Johnny Grant's earliest home site on Little Blackfoot River and the small settlement of Cottonwood served as centers of trade for regional Indian tribes including the Flathead, Pend d'Oreilles, Nez Perce, Yakima, Coeur d'Alene who passed through the Deer Lodge Valley.

### **Merchandising**

The small settlement of Cottonwood served as a central supply depot for early regional mining camps during the 1860s.

## **Cultural Traditions**

### **Root and berry gathering**

Many of Johnny Grant's American Indian wives and their families continued to practice the seasonal tradition of gathering roots and berries.

### **Irrigation ditches**

Sometime between 1861-1866, Johnny Grant dug an informal irrigation ditch system of unknown length and orientation. It was most likely located to the west of his ranch house and drew from the Deer Lodge River.

Jack-leg fencing

An 1865 drawing of the Johnny Grant residence by Granville Stuart documents that the domestic core of the ranch was encircled by a jack-leg fence.

### **Cluster Arrangements**

Cottonwood Creek

Early European settlers created a small settlement at the confluence of the Deer Lodge River and Cottonwood Creek. The settlement was later given the name of Deer Lodge.

Domestic core

An 1865 drawing of the Johnny Grant residence by Granville Stuart documents the presence of two tipis on the east lawn area and suggests that the domestic core of the Grant ranch may have served as an informal trading post and camping area for Indian groups passing through the Deer Lodge Valley.

### **Circulation**

Mullan Road

The first military road through the region, the Mullan Road, passed just north of the small town of Deer Lodge and was completed in 1863.

Valley Road Network

According to the original survey of T8n, R9W, several formal roads traversed the Deer Lodge Valley by the mid-1860s. Many of these roads followed major and minor drainages and led to and from the region's numerous mining towns. Many of these roads may have followed pre-existing Indian paths. Two county roads led north from Cottonwood to their intersection with the Mullan Road, one unnamed road west of and adjacent to the Deer Lodge River, and the Deer Lodge – Garrison road east of and adjacent to the Grant residence, passing directly through the project area. A third major road, the Deer Lodge – Helena road, led diagonally in a northeast direction from Deer Lodge to the future state capital.

### **Vegetation**

Crops

Records document that the early European settlers of the Deer Lodge Valley cultivated and sold wheat and oats and other marketable grains. Ca. 1863-1864, Johnny Grant began to cultivate “a couple of acres of oats” on his ranch.

## Vegetables

Records document that the early European settlers of the Deer Lodge Valley cultivated small garden plots and produced “vegetables of all kind[s].” Sometime during the early to mid-1860s Johnny Grant purchased a variety of vegetable seeds and cultivated a small garden. It is not known where this garden was located.

**Buildings and Structures**

## Log cabins

Log cabins appear to have been the dominant form of vernacular architecture utilized in the settlement of Cottonwood during the early to mid-1860s. By 1864, the small town was described as consisting of “six log cabins.”

## Bunk house (HS-2) built

Ca. 1861, Johnny Grant constructs the first structure, a log cabin (part of what is now HS-2), within the project area. The structure was described as “a good sized log house, or rather two joined together.”

## Ranch house (HS-1) built

In 1862, Johnny Grant hires craftsmen to build a new, larger log house. The log house was 30 x 60 feet, two stories high, constructed of regional lumber, and had a plastered first story.

## Livery stable built

Ca. 1865, Johnny Grant constructed an 80 x 30 foot livery stable at an unknown location on his ranch.

## Livery stable burned

In early 1866, the livery stable is destroyed by fire.

**Constructed Water Features**

## Irrigation Ditches

Sometime between 1861-1866, Johnny Grant dug an informal irrigation ditch system of unknown length and orientation. It was most likely located to the west of his ranch house and drew from the Deer Lodge River.

**Small Scale Features**

## Fence on east side of ranch house

An 1865 drawing of the Johnny Grant residence by Granville Stuart documents that the domestic core of the ranch was fenced with traditional jack-leg fencing. This fence may have served to demarcate the boundary between the public road and Johnny Grant’s private lands.

## Range fences

An 1865 drawing of the Johnny Grant residence by Granville Stuart documents that the range lands beyond the domestic core were also fenced with another as yet unidentifiable fence type.

## The Conrad Kohrs Home Ranch and the Growth and Development of the Ranching Industry on the Northern Plains, 1866-1887

### Introduction

In the two decades subsequent to acquiring the Johnny Grant Ranch in 1866, Conrad Kohrs' and John Bielenberg's ranching interests grew dramatically. They expanded from a small, local operation to a regionally dominant cattle ranching and butchering business, they improved the quality of their own stock by purchasing registered breeds, paid close care and attention to seasonal ranges and their utilization, and provided Montana and other ranchers in the northwest region with quality breeding stock. In addition, they dramatically expanded the physical facilities at the home ranch constructing barns, sheds, and other ranching features to support their needs. As a result, the Kohrs and Bielenberg operation became one of the leading ranches in Montana during the last quarter of the nineteenth century.

### Historical Context

The year 1866 was a critical year for Conrad Kohrs' cattle ranching business. He bought out his former partner in the butchering business, Ben Peel. In addition he purchased the Johnny Grant Ranch. "On the 23<sup>rd</sup> of August, 1866, I bought out Johnny Grant's ranch, the land of which has not been surveyed and had no title to and the remainder of his cattle, amounting to about 350 head from yearlings up. The price paid was \$19,200 on which I paid \$5,000, the balance to be paid next spring. The fore part of September ...I took possession of my property." The cattle herd acquired from Grant was strong in Shorthorn blood. By the end of the year he had also acquired the adjacent Louis Demers Ranch on the west side of the Deer Lodge River. The acquisition of the Grant and Demers Ranches gave him a large home base from which to run his operations.<sup>56</sup>

Shortly after its acquisition by Kohrs, the ranch house (HS-1) was the subject of a painting (See Figure 2-3). The 1866 image depicts the ranch house from the northeast. In the northern end of the front or east lawn of the ranch house are two long-horned (Spanish?) cattle and several horses and mules with riders. A post and rail fence with a gate to the north of the ranch house appears to contain the animals. Several cattle are pictured, presumably grazing in a field north and west of the ranch house. In the southern end of the front or east lawn are pictured two teepees. No trees are noted to be planted anywhere around the ranch house. To the north and south of the ranch house, unidentified vegetation appears to line the course of the Deer Lodge River.<sup>57</sup>

In 1868, Conrad Kohrs visited his mother in Iowa and before returning to Montana married Augusta Kruse, an acquaintance he had known from childhood. Con and Augusta made the long trip back to Montana and settled in his new ranch. By the time Augusta had arrived at the ranch house, it apparently showed the wear and tear of ranch life. Within a short time, Augusta had the house looking proper. In 1871, the ranch house was described by a newspaper reporter. "The residence of Mr. Kohrs is one of the largest in Montana having seven finely furnished rooms on the first floor, besides a magnificently furnished parlor and a spacious dining room, the second floor contains a large hall." During the late 1860s, Deer Lodge City continued to grow slowly. In 1867, A. K. McClure described it as "a little village of probably 200 inhabitants, situated on the river of the same name, and nearly central in the most picturesque and beautiful valley I have

<sup>56</sup> Kohrs, *Autobiography*, 43; Albright, *Historic Resource Study*, 6; John Clay, "The Passing of Conrad Kohrs," *Breeders Gazette* (December 1920).

<sup>57</sup> Anonymous, "Residence of John F. Grant, purchased by Hon. Conrad Kohrs in 1866" (Copy in the Grant-Kohrs Ranch NHS Library, Deer Lodge, Montana).

seen in Montana. There were no mining camps within ten miles of the town, and it wears the quiet, sober air of an agricultural community.” By 1869, the present town plat of Deer Lodge consisting of 82 blocks was filed by D. P. Newcomer and surveyed by D. L. Griffith. The patent for the land was recorded on October 4, 1872.<sup>58</sup>

In the late 1860s, surveyors from the Government Land Office came through the Deer Lodge Valley and laid out the Township, Range and Section lines. A plat of T8N R9W shows four major roads to and from Deer Lodge City (See Figure 2-4). Two roads lead north of the city, the main one east of the Deer Lodge River called the ‘Road to Hell Gate’ leading from the center of town to its intersection in Section 4 with the U. S. Military Road, and a second also called the ‘Road to Hell Gate’ was located just west of the Deer Lodge River and at the foot of the mountain range. Leading north east from Deer Lodge City, a road called ‘Road to Blackfoot and Helena’ exited the plat on the border between Sections 1 and 12. Leading nearly due east from Deer Lodge City, a road called ‘Road to Timber,’ roughly paralleled the course of Cottonwood Creek. Conrad Kohrs’ ranch house is shown just west of the main Hell Gate Road in the northwest quadrant of Section 33. Surrounding the ranch site to the south and west are fenced lands, presumably those belonging to the Kohrs – Bielenberg operation. Surveyors’ field notes, although brief in their description, document the vegetation of the land and rate its soils. In Sections 28, 29 and 32, the timber along the Deer Lodge River is noted to be “cottonwoods and willows.” The rich bottom lands on either side of the Deer Lodge River were noted to be level with first rate soils. The bench lands upon which Conrad Kohrs ranch house was located were 10 to 15 feet higher than the bottom lands and were described as level or nearly level, with first and second rate soils, but no timber present east of the Deer Lodge River. To the west of the Deer Lodge River the gravelly foothills were noted to contain several ravines with second and third rate soils and an absence of timber.<sup>59</sup>

Although some form of irrigation system was known to be present on the Kohrs-Bielenberg ranch, the GLO surveyors made no note of crossing any irrigation ditches in 1868-1869. Therefore it is possible that the surveyors did not cross any irrigation features, or perhaps crossed them but did not take note of them. Either way, water rights records document that Kohrs had established a new claim from Deer Lodge Creek in 1872. This claim may perhaps tie in with the establishment of the Kohrs-Manning Ditch Company ca. 1872.<sup>60</sup>

Throughout the late 1860s, Kohrs kept two distinct herds of cattle, one a ‘beef herd’ which was kept locally in the Deer Lodge Valley for supply to his butcher shops in the miners camps, and a second much larger herd of ‘breeding cattle’ that was kept in distant grazing lands. The rapidly disappearing local miner’s market for butchered beef eventually forced Kohrs to initiate a different business strategy. As Con Warren acknowledged much later, Kohrs became a cattle baron by ‘default.’ On the suggestion of Tom Hooban, a trusted associate, Kohrs moved his breeding herd to the lush grasses along the Sun River, what was then known as Indian Country and perceived as the public domain. The 1870s is commonly acknowledged as the decade that the open range in Montana began. As Kohrs noted, “the cream of placer mining was past and many of our miners had followed the stampede to Nevada, White Pine and other districts. With less people in the country the demand for beef was not as great as in previous years.”<sup>61</sup>

<sup>58</sup> Kohrs, *Autobiography*, 50-51; Albright, *Historic Resources Study*, 25; Speck, “History,” 67-68, 71.

<sup>59</sup> GLO Survey, T8N R9W (1869); GLO Surveyor’s Notes, T8N R9W.

<sup>60</sup> Albright, *Historic Resource Study*, 217; Rosenberg, “Hard Winter Endurance,” 15, 35; Montana Water Rights Records, Montana Department of Natural Resources Conservation ([www.dnrc.state.mt.us](http://www.dnrc.state.mt.us)).

<sup>61</sup> Kohrs, *Autobiography*, 52, 55; James O’Barr Interview with Con Warren, April 5, 1985; Rosenberg, “Hard Winter Endurance,” 17-18.

Beyond the beef ranching business, Kohrs also kept a variety of additional livestock at the home ranch during this period. Soon after Augusta arrived in 1868, the home ranch is documented as having eight milk cows, and a small band of sheep and numerous working and specialty horses that they exhibited at the regional fair. As Albright notes, “sheep apparently had a place in the operations by 1870, but never comprised a major portion of the business.” By 1870, Kohrs had advertised regionally his possession of a thoroughbred horse for ‘stallion service.’<sup>62</sup>

By 1872, substantial changes were implemented to the Kohrs-Bielenberg ranching business. John Bielenberg went to Texas to bring a herd of Longhorn stock back to the Deer Lodge Valley. Conrad Kohrs also purchased his first herd of registered Short Horn cattle from a dealer in the Midwest and sent them to his ranch at Deer Lodge. This herd was composed of half a dozen bulls and over one hundred cows and was subsequently used for breeding and improving the stock of his own herds and for sale to regional ranchers. “Bulls from my first-purchased Short Horn were used for breeding range stock, and I also purchased a whole carload of bulls in the East for service in the Sun River Country.” In addition by 1874, Kohrs sold two of his registered Short Horn bulls to local ranchers. The registered Short Horn herd was regularly supplemented as reflected in additional purchases throughout the late nineteenth century.<sup>63</sup>

During the early 1870s there is substantial evidence that Kohrs may have expanded both hay and grain cultivation at his Deer Lodge and other regional ranches. By the end of 1872, he had acquired a ten-horse power Davenport threshing machine for use at the home ranch. In addition, the spring following the hard winter of 1872-1873, records document that Kohrs planted excelsior oats “100 pounds to the acre,” presumably in an attempt to stock more winter feed for his Deer Lodge herd. This is also the period when documentation suggests that Kohrs and a Judge Manning of Deer Lodge initiated the improvement of an existing irrigation ditch dating to the Grant period. The improvements made to this ditch system would later become known as the Kohrs-Manning Ditch and the water rights were used in stock watering and irrigation. The Kohrs-Manning Ditch obtained water from the Clark Fork River just south of the home ranch and also subsequently obtained water from the smaller drainages of Peterson Creek and Reece Anderson Creek. Montana state water rights records indicate that Kohrs established water rights from Johnson Creek in 1866, and the Clark Fork River in 1872. It is presumed that ditches that drew from Johnson Creek could only have irrigated a few small meadows south of the Ranch House (HS-1), but ditches that drew from the Clark Fork River in the early 1870s could have irrigated a large expanse of riverine floodplain west of and adjacent to the Ranch House (HS-1). The Kohrs-Manning ditch system was expanded and improved upon within the home ranch lands throughout the late nineteenth century. Water rights document that Kohrs expanded his water rights to Johnson Creek and the Clark Fork River in the mid-1880s. About the same time as Kohrs began to irrigate his fields for cultivation, he also likely began to add to and or replace the pre-existing fences within the home ranch to secure his crops from stray livestock. While there are no records to substantiate it, typical ditch maintenance required the cleaning of brush on a regular seasonal basis, a process that was traditionally carried out by burning of the ditches.<sup>64</sup>

Kohrs’ decision to expand cultivation at the Home Ranch was not an isolated one. Other ranchers and farmers in larger Deer Lodge Valley were already growing cash and grain crops on a limited

<sup>62</sup> Kohrs, *Autobiography*, 51; Albright, *Historic Resource Study*, 10, 23.

<sup>63</sup> Kohrs, *Autobiography*, 58, 72-73; Albright, *Historic Resource Study*, 28, 31, 35, 43; Kohrs, “A Veteran’s Experience,” 1328-1329.

<sup>64</sup> Albright, *Historic Resources Study*, 28-29, 32; McChristian, *Ranchers to Rangers*, np; National Park Service, “National Register of Historic Places Nomination Form: Grant-Kohrs Ranch, National Historic Site,” 7-8.

scale. An 1872 assessor's report for Deer Lodge County recorded a total of 72 acres of wheat, 151 acres of barley were grown and that a total of 3,650 acres of meadow cut for hay.<sup>65</sup>

By 1874, Kohrs had sent his first herd of cattle to the Chicago markets and by the middle of the decade had established a long-term relationship with the Chicago beef markets, subsequently forming a partnership with the stock commissioner Joseph Rosenbaum.<sup>66</sup>

Despite the fact that he purchased the Johnny Grant ranch as an unsurveyed and unpatented tract of land in 1866, Conrad Kohrs did not obtain legal ownership of his home ranch property until 1874 when he initiated the homesteading process. The land patent was approved in January of 1876.<sup>67</sup>

Sometime between 1868 and 1880, the front or east lawn of the ranch house domestic complex was planted with a formal, grid-like pattern of cottonwood trees. The earliest image to document this planting arrangement is the 1883 Stoner *Bird's Eye View of Deer Lodge* with an insert of the Kohrs ranch house (See Figure 2-6), however the later 1884 Leeson image of the Conrad Kohrs residence published in the *History of Montana* gives much more detail (See Figure 2-7). The trees were apparently planted no later than 1880 as a letter from Conrad Kohrs to his daughter dating to the spring of 1881 documents that many if not most of the trees died during the winter of 1880-1881 and were to be replanted in the spring time. "Our trees have nearly all frozen last winter. Ande is digging them out now. We are going to plant some new ones tomorrow." Grass was apparently grown underneath the trees as the same letter notes that "our yard looks nice and green." The garden, presumably the one on the south side of the ranch house, was also noted to be present and full of flowers. "I will fix the garden all up this week and replant the strawberries." Access to the garden during this early period was from the east.<sup>68</sup>

It is also likely that during this period, the irrigation system that watered the front or east lawn of the ranch house and the south garden was installed. Water for the lawn and garden was obtained from a ditch that drew from Johnson Creek, a drainage south and east of the ranch house (HS-1) that drained into the Clark Fork River. The ditch passed westward under the highway and under the east picket fence enclosing the ranch house front yard, where it entered an open wooden flume for dispersion in the front lawn before re-entering the ditch where a wooden barrel was buried. A siphon drained the Johnson Creek ditch and fed water into the trough. The irrigation system on the lawn had a box running to the lilacs where it poured into a cut off barrel that was set in the ground. "Augusta would dip water from the barrel with a bucket and carry it to all the cottonwood trees on the lawn. She had to water them all by hand until they got forced water."<sup>69</sup>

Within the larger home ranch, substantial construction took place north of the ranch house (HS-1) in the decade of the 1870s as the cattle and horse breeding needs at Deer Lodge grew. The draft horse barn (HS-7) and oxen barn (HS-10) were erected in 1875. Also during the 1870s, three stallion barns (HS-14, HS-19 and HS-30), and the Leeds-Lyon stallion barn (HS-16) were erected.<sup>70</sup>

<sup>65</sup> *New North West* (Deer Lodge, Montana, September 28, 1872).

<sup>66</sup> Kohrs, *Autobiography*, 63-64; Rosenberg, "Hard Winter Endurance," 18; Kohrs, "A Veteran's Experience," 1329.

<sup>67</sup> Conrad Kohrs to daughter, 5/4/1881 as cited in National Park Service, "CLI," 7.

<sup>68</sup> National Park Service, "CLI for Ranch House (HS-1) [2002 DRAFT]," 5.

<sup>69</sup> Lyndel Meikle Interview with Con Warren, May 7, 1984; Jim Taylor Interview with Con Warren, November 3, 1982.

<sup>70</sup> National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site. Note: HS-14 was moved during 1977-1979 "thirty feet west to [its] original location in order to replace foundation". The Leeds-Lyon barn was spelled 'Leeds-Lion' in the Registration papers.



Between 1875 and 1879, western Montana witnessed a series of battles within the larger northwest between the U. S. Military and American Indian populations. As usual, the conflicts arose out of the tension between emigrating European settlers' desire for new lands and the resistance of many tribes to leave their homeland. In 1876, Sioux Indians killed Col. George Custer and over two hundred of his soldiers at Little Big Horn. A year later, in an effort to avoid going to the recently established Wallowa Reservation, Chief Joseph and his band of Nez Perce retreated from their homeland in northeastern Oregon and were ultimately captured in northern Montana. Deer Lodge and other southwestern Montana towns prepared for the retreat of Chief Joseph by arming themselves and posting lookouts. The battle of the Big Hole occurred in August 1877, only 80 miles to the south of Deer Lodge. By 1879, the Nez Perce, Sioux, Northern Cheyenne, and Crow nations had been forcibly settled on reservations.<sup>71</sup>

By the late 1870s, the railroads from the east were gradually making their way closer to the Plateau region. In 1877 the nearest railhead to Deer Lodge was at Pine Bluff, in southeastern Wyoming. During the same year, Father Palladino described the Deer Lodge Valley.<sup>72</sup>

The traveler is treated to one of the most glorious views which fills him with wonder and delight by its surpassing beauty and impressiveness. The valley lies there smiling before him, the little town nestling in its cottonwood groves by the bank of the river. The Deer Lodge River cuts the valley in a northwesterly direction and its meandering course is made more conspicuous by the fringe of vegetation along its banks. Yonder, to the left, are the Hot Springs, while directly in front rise the bench lands which stretch back and up to the pine forests on the mountain side. And now, above the broad wooded belt, bare, bold cliffs lift up their heads, with Mount Powell, some 13,000 feet high, towering among them as a giant among pigmies; while a little to the right the eye is charmed by the snow covered crests of the Gold Creek Range.<sup>73</sup>

By the late 1870s, Kohrs and Bielenberg had expanded their experiment in livestock improvement through breeding of horses. In 1878, Kohrs purchased two thoroughbred stallions that were sent to the home ranch. A year later, he purchased two Clydesdale stallions and by the end of the year, "a carload of Clyde mares and two stallions" from Canada. This marked the first foray into the breeding of work horses for the ranch and farm. Breed experimentation also apparently extended to sheep as well. In 1879, the *New Northwest* noted that John Bielenberg possessed "a couple of fine Merino Rams." Merino sheep were originally bred for their fine wool, but much later were also bred for their meat qualities.<sup>74</sup>

Owing to a number of perceived threats, regional cattlemen formed the Montana Stock Grower's Association in 1884. Its stated goal was to protect stock from "Indians, thieves, wild animals and disease." While Indians and buffalo were largely absent from the open range, and wild animals and thieves represented only a very small part of annual losses, ranchers were most concerned with the encroachment of southern cattle herds and the potential overgrazing of the open range and risk of interbreeding and resulting dilution of stock quality that they represented. In addition, as the grazing herds began to grow, disease became a more prevalent threat to cattle ranchers of the northern plains. An outbreak of "Black Leg" occurred at the Kohrs-Bielenberg ranch in 1879,

<sup>71</sup> Kohrs, *Autobiography*, 68-69; Albright, *Historic Resources Study*, 41, 47; Beckham, "History Since 1846," 163.

<sup>72</sup> Albright, *Historic Resource Study*, 42-43.

<sup>73</sup> Speck, "History," 7.

<sup>74</sup> Kohrs, *Autobiography*, 72-73; Albright, *Historic Resource Study*, 43. Sometime after 1885, family tradition states that another breed of draft horses, Shires, were also added to the ranch house equine stock. See Albright, *Historic Resource Study*, 59; Lyndel Meikle, "GRKO Ranching Pre-1886," Subject – Sheep, nd. (Card files at the Grant-Kohrs Ranch National Historic Site Administrative Offices, Deer Lodge, Montana).

although losses were minimal. Only a few years later in 1884, Kohrs organized a meeting of local cattlemen to discuss the threat of disease to their herds brought by the cattle from Texas. They formed a committee of five to monitor the situation.<sup>75</sup>

By about 1880, three new structures were added to the working ranch landscape. The ice house (HS-5), the Bielenberg barn (HS-11), and a beef hoist (HS-40) were erected during the year. It is also during this period that Kohrs and Bielenberg began damming up Johnson Creek to form an ice pond during the winter. Once frozen, the ice would be cut and stored in the ice house for the coming year. It is not known where the ice pond was located, whether it was excavated, or if Kohrs and Bielenberg just used the surrounding shallow topography to retain the water.<sup>76</sup>

The severe winter of 1880-1881 hit regional cattle ranchers hard. The Kohrs and Bielenberg herds lost approximately 15% of their stock. In addition, many of the cottonwood trees planted in the front or east lawn of the ranch house (HS-1) were killed off. This may have been a direct result of their recent planting and the lack of a mature root system.<sup>77</sup>

Throughout the late 1870s and early 1880s, the regional railroads continued to press both east and westward eventually passing through the eastern Plateau region of southwest Montana. In 1883, the Utah Northern and the Northern Pacific Railroads joined at Garrison Junction, just north of Deer Lodge. Upon his return to Deer Lodge in 1882, Kohrs found that the Utah Northern railroad had proposed to run a branch line, the Montana Union from Butte to Garrison, through the Kohrs-Bielenberg Ranch directly in front of his ranch house and south towards the town of Deer Lodge. The right-of-way through his property was appraised at \$5.00 per acre. "I would not accept the terms and brought suit and collected \$1,500 from the railroad company." Kohrs only granted them an easement but did not sell the land.<sup>78</sup>

Despite his anger with the railroad's decision to run the line right in front of his house, Kohrs clearly took advantage of the business opportunity that the proximity of the line presented. In 1883, he supervised the first shipment of 1,100 head of cattle to Chicago via the Northern Pacific line.

Possibly as a response to the railroad and its disrupting effects on his home ranch complex, Kohrs continued to build new stock related structures. In 1883, the *New Northwest* reported that "Kohrs and Bielenberg are building two large stock barns and stables." It is likely that one of these two structures was the thoroughbred barn (HS-15). The second may have been one of three non-extant structures, C, D or E. In addition, the buggy shed (HS-17) was erected on the eastern end of bunkhouse row (HS-2) sometime prior to this date.<sup>79</sup>

Shortly after the railroad initiated service to Deer Lodge, J. J. Stoner drew a "1883 Bird's-Eye View of Deer Lodge City, County Seat of Deer Lodge Co., Montana" (See Figure 2-6). The image shows the newly constructed line with a train passing south through Deer Lodge City. Most of the landscape surrounding the dispersed town appears to be open with the exception of

<sup>75</sup> Rosenberg, "Hard Winter Endurance," 37-39; Albright, *Historic Resource Study*, 44, 55.

<sup>76</sup> National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site. Note: The frame lean-to adjacent to the ice house (HS-5) was added ca. 1912; National Park Service, "National Register of Historic Places Registration Form: Grant-Kohrs Ranch, National Historic Site," 7-24.

<sup>77</sup> Albright, *Historic Resource Study*, 47; National Park Service, "CLI for Ranch House (HS-1) [2002 DRAFT]," 5.

<sup>78</sup> Albright, *Historic Resource Study*, 48; National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, (Listed 2003), 7-6; Kohrs, *Autobiography*, 74; Rex Myers Interview with Con Warren 1980, Tape 13, Side B.

<sup>79</sup> Albright, *Historic Resource Study*, 53; National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site. Note: This structure (HS-17) was moved in 1907-1908, from the east end of Bunkhouse Row (HS-2) where it formed the eastern 2/3rds of the buggy shed, to present location to make way for the Milwaukee Railroad.

linear banks of trees lining the Deer Lodge River and its numerous drainages. The image also has an inset drawing of the Kohrs-Bielenberg Ranch. While not in great detail, the inset shows the home ranch from the southeast and shows the ranch house (HS-1), bunk house (HS-2), and the buggy shed (HS-17) and two substantial barn-like structures to the north. The east or front yard of the ranch house is planted in trees as well as what appears to be the eastern side of the ranching complex between the barn-like structures and the lines of the Utah and Northern railroad.<sup>80</sup>

Records suggest that during the early 1880s, Kohrs continued to expand the type of purebred livestock he kept at the home ranch in a continuing effort to improve his own stock. By 1884, Kohrs and Bielenberg had entered an Angus bull and an Ayrshire cow at the Territorial fair. The polled Angus breed was valued as a premier beef stock. The Ayrshire breed was a commercial dairy cow known for its efficient milk production and its ability to graze in pasture conditions. Also in the same year, Kohrs sold a registered Hereford bull to a local rancher. This suggests that registered Hereford bulls may have been present at the home ranch a few years earlier. Kohrs entered a number of Hereford heifers, cows, calves, yearlings, bulls in the 1885 Helena fair. Presumably after testing the Angus and Hereford purebreds for several years, by the late 1880s Kohrs and Bielenberg decided that the stock that came from Hereford bull and commercial cow cross was best suited to Montana's open range and enabled him to produce a fast growing healthy animal that would sell well in the Chicago market. Ultimately, the Angus breed may have met an unusual end in the Kohrs-Bielenberg ranching business. Con Warren related a story where Kohrs and Bielenberg brought in the first herd of Angus into the Gold Creek range lands. "When they went to round them up, they couldn't so they finally shot, butchered, and took them out that way. This was due primarily to the nature of Angus which are not as gentle as Herefords."<sup>81</sup>

In 1883, Kohrs and Bielenberg became one of the largest ranchers in Montana with the purchase of a 2/3 share of the DHS Ranch and 12,000 cattle with Granville Stuart. While the purchase did not have a direct impact on the project area under study, it may have had an indirect impact on the scale of operations at the home ranch. A direct result of Kohrs expanding ranching business was his participation in a number of regional stock organizations and his entry into Territorial politics. In 1884, Kohrs was named as the Deer Lodge and Meagher County representative to the Montana Stock Growers Association. That fall he was elected as a representative to the Territorial Legislature in Helena becoming a member of the 'Cowboy Legislature'.<sup>82</sup>

Under Kohrs and Bielenberg's care, during the mid-1880s the home ranch continued to gradually expand in acreage. In 1884, they purchased the Tom Stuart place to the east of the Deer Lodge River between Deer Lodge City and the Home Ranch. Shortly after its acquisition, Kohrs and Bielenberg initiated water rights to Johnson Creek and most likely began irrigating the Stuart field. In addition to valuable crop lands and access to Johnson Creek, the Stuart complex also possessed several structures including a domestic residence, well, and agricultural outbuildings. By 1885 Kohrs and Bielenberg had also purchased a quarter of a quarter section (160 acres) from Charles Bielenberg, adjacent to the home ranch.<sup>83</sup>

By 1884, the Kohrs-Bielenberg home ranch was again pictured in an illustration by M. A. Leeson and published in the *History of Montana* (1885) (See Figure 2-7). The illustration shows the ranch house (HS-1), bunk house (HS-2), and buggy shed (HS-17) from the east and is titled "Residence

<sup>80</sup> J. J. Stoner, "1883 Bird's Eye View of Deer Lodge City, County Seat of Deer Lodge Co., Montana" (Milwaukee: J. J. Stoner, 1883).

<sup>81</sup> Albright, *Historic Resource Study*, 56, 58; Holm/Haviland Interview with Con Warren, December 1, 1976.

<sup>82</sup> Albright, *Historic Resource Study*, 52-53, 58, 61.

<sup>83</sup> Albright, *Historic Resource Study*, 57, 61; Winifred Brown, "Trip to Grant-Kohrs Ranch National Historic Site," 1-2. Memorandum to Wilfred D. Logan, April 25, 1975.

of Conrad Kohrs, Deer Lodge, Mont. Kohrs & Bielenberg, Breeders of Short-Horn & Hereford Cattle, Thoroughbred, Clydesdale, Percheron-Norman, and Coach Horses.” The image shows a partially obscured ranch house with formal entryway that is dominated by a formal grid-arranged planting of cottonwood trees. The ranch house is encircled on its east and north sides by a white picket fence. A path leads from the front door of the ranch house down a short tree-lined alley to a formal gate in the fence line. Just outside the fence line is a frame mounting or carriage block and two hitching posts. A secondary path leads from the front door of the ranch house around to the north or work side of the structure and through a second gate. The trees in the front yard appear to be of varying size, the tallest of which line the front path. Many of them appear to be relatively immature suggesting that they had been in the ground only a few years. Immediately to the north of the ranch house is the bunkhouse complex. The ranch house and bunk house and buggy shed complex are separated by a wagon road or farm lane that is gated, presumably to control circulation. Behind and to the north of the bunk house complex is a series of barns / sheds / pens and jack-legged fenced corrals. East of the domestic compound and in the foreground of the image are what appear to be several thoroughbred horses, some with riders, and a few Short Horn or Hereford cattle. At least one of the horses is a Clydesdale. West and north of the ranch house, yet east of the Clark Fork River is a fenced field with a few cattle grazing near what appears to be a fenced hay pile. The Clark Fork River appears as a tree lined slip in the background. To the west of the Clark Fork River and in the foothills and butte slopes are numerous cattle grazing on a fenced range.<sup>84</sup>

Between 1868 and the mid-1880s, the Ranch House (HS-1) and its surrounding domestic landscape underwent a dramatic transformation from a relatively rustic abode to a more civilized residence reflecting domestic refinement. Augusta Kohrs clearly had a prominent role in its overall development and was likely directly responsible for layout, design and seasonal maintenance of the vernacular south (ca. 1880) and lower flower (ca. 1890) gardens. It is also likely that both Con and Augusta contributed to the design and construction of the more formal front or eastern yard, including the planting of cottonwood trees and lawn and construction of a white picket fence. Records indicate that Kohrs himself supervised the re-planting of a majority of cottonwood trees in 1881 while Augusta and children were out of the country, but that the white picket fence may not have been built until 1883-1884, after Augusta returned. Augusta continued to maintain both gardens and the front lawn and trees well into the second quarter of the twentieth century. By the end of the nineteenth century, historic photographs also document that the lower ranch yard immediately adjacent to and west of the ranch house (HS-1) was congested with agricultural and ranching outbuildings and a complex of fences and roads (See Figures 2-9 through 2-17).<sup>85</sup>

As Walter has documented, the ‘hard winter’ of 1886-1887 may not have been the most severe in terms of low temperatures and snowfall amounts and cannot be seen as an isolated event. Rather it is directly linked to events that preceded it, most particularly the overgrazing of the open ranges since the early 1880s. The winter did, however, have a dramatic impact on the Montana cattle industry and the future direction that ranching would take in the coming decades. The winter of 1886-1887 had followed a prolonged spring and summer drought that impacted the quality and quantity of winter feed harvested from fields, and also the quantity and quality of grass on the open range. Early spring counts documented that open range cattle died by the tens of thousands on the Plateau valleys and northern plains. As a result of the substantial losses, many

<sup>84</sup> M. A. Leeson, *History of Montana*, (M. A. Leeson, 1985).

<sup>85</sup> Shapins Associates, “Grant-Kohrs Ranch National Historic Site, Historic Structure No. 1 (HS-1), Cultural Landscape Inventory,” 70% Draft, 2003, 11-12.

bankruptcies occurred. Losses to the recently acquired DHS herd were near 66%. The home ranch and its smaller registered herds however survived the winter well enough.<sup>86</sup>

### Landscape Characteristic by Chronological Period

#### **Natural Systems and Features**

Trees	To escape the intensive summer heat in a nearly treeless landscape, Conrad and Augusta plant many trees on the front or east side of the ranch house.
Water resources	Water sources were important to early European settlers and frequently dictated where permanent settlement would occur. Like Grant before him, Kohrs utilized the existing permanent and seasonal drainages by digging irrigation ditches draining off of them for agricultural purposes, and to provide his animals with a potable drinking supply.
Timber resources	Prior to the arrival of the train, Conrad Kohrs continued to use the regionally abundant timber resources, such as cottonwood and willow trees located along area drainages, and other non-deciduous species located on mountain sides surrounding the Deer Lodge Valley in developing his ranch.

#### **Spatial Organization**

Formal domestic space	After their marriage, and sometime between 1868 and 1881, Conrad and Augusta Kohrs defined a formal domestic space surrounding their ranch house by constructing a picket fence and planting trees, grass and a garden. This space was differentiated from the larger working ranch.
Fields	Fields under cultivation were adjacent to or nearby local drainages due to the richer bottomland soils, and the ability to irrigate crops. Dryland farming was not a viable option in western Montana.

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<sup>86</sup> Albright, *Historic Resource Study*, 65-75; Dave Walter, "The Hard Winter of 1886-1887: Was that Winter a Century ago really Montana's 'big one' of all time?," *Montana Magazine* (January-February 1987), 61-68.

Garden	Sometime between 1868 and 1881, Conrad and Augusta Kohrs planted a flower garden just south of and adjacent to their residence.
<b>Land Use</b>	
Grazing	Kohrs and Bielenberg used portions of the home ranch as an open range upon which to graze their growing cattle herds.
Agriculture	Kohrs and Bielenberg practiced a limited agriculture in irrigated fields. Wheat, oats and hay were farmed on a small scale and used as livestock feed to supplement open range grazing.
Settlement	The Kohrs-Bielenberg Ranch was one of many ranch / residential properties spread throughout the larger Deer Lodge valley.
<b>Cultural Traditions</b>	
Irrigation Ditches	Between 1866 and 1887, Kohrs and Bielenberg expanded upon and improved the existing irrigation ditch system initiated by Johnny Grant.
Jack-leg fencing	An 1884 sketch of the residence of Conrad Kohrs by M. A. Leeson documents that jack-leg fences continued to be used at the ranch.
<b>Cluster Arrangements</b>	
North ranch cluster	Over the period of two decades, Kohrs and Bielenberg constructed a large cluster of stock barns, sheds, corrals and pens just north of bunkhouse row (HS-2). This appears to be the earliest cluster of working ranch facilities within the project area.
Bielenberg cluster	A second cluster of ranch buildings was constructed southwest of the ranch house (HS-1) from the mid-1870s onward and consisted primarily of horse related facilities including the Bielenberg barn (HS-11) and four surrounding stallion barns (HS-14, HS-16, HS-19 and HS-30).

## **Circulation**

Mullan Road	An 1868 GLO survey and plat of T8N R9W shows the location of the Mullan Road, north of the small town of Deer Lodge.
Valley Road Network	An 1868 GLO survey and plat of T8N R9W shows the location of two county roads leading north from Deer Lodge City to their intersection with the Mullan Road, one west of and adjacent to the Deer Lodge River and one east of the Kohrs residence, passing directly through the project area.
Ranch entrance road	Nineteenth century images of the Kohrs residence document a short entrance road that lead from the county road west towards the east side of the ranch. The road passed between the ranch house (HS-1) and the bunkhouse (HS-2).
Ranch house walks	Sometime between 1868 and 1881, Conrad and Augusta Kohrs constructed plank and later brick paths leading from the front door of the ranch house to the eastern gate in the picket fence, and around the north side of the house.
Utah Northern railroad	In 1883, the Utah Northern railroad laid its tracks through the Kohrs-Bielenberg Ranch just east the ranch house.

## **Vegetation**

Cottonwood trees	Sometime between 1868 and 1881 a formal grid-like pattern of cottonwood trees was planted on the east or front side of the ranch house. In 1881, those trees that did not survive the winter were replaced.
Grass	Sometime between 1868 and 1881 grass was planted beneath the cottonwood trees on the east or front side of the ranch house.
Crops	Conrad Kohrs cultivated oats, hay and other important grains most likely in fields located in the rich bottom lands adjacent to the Deer Lodge River.
Flowers	The small garden south of and adjacent to the ranch house produced flowers for the Kohrs family.

**Buildings and Structures**

Draft horse barn (HS-7) built	Kohrs and Bielenberg construct the draft horse barn (HS-7) ca. 1875.
Oxen barn (HS-10) built	Kohrs and Bielenberg construct the oxen barn (HS-10) ca. 1875.
Leeds-Lyon stallion barn (HS-16) built	Kohrs and Bielenberg construct the Leeds-Lyon stallion barn (HS-16) ca. 1870s.
Stallion barn (HS-14) built	Kohrs and Bielenberg construct the stallion barn (HS-14) ca. 1870s.
Stallion barn (HS-19) built	Kohrs and Bielenberg construct the stallion barn (HS-19) ca. 1870s.
Stallion barn (HS-30) built	Kohrs and Bielenberg construct the stallion barn (HS-30) ca. 1870s.
Ice house (HS-5) built	Kohrs and Bielenberg construct the ice house (HS-5) ca. 1880.
Bielenberg barn (HS-11) built	Kohrs and Bielenberg construct the Bielenberg barn (HS-11) ca. 1880.
Beef hoist (HS-40) built	Kohrs and Bielenberg construct the beef hoist (HS-40) ca. 1880.
Thoroughbred barn (HS-15) built	Kohrs and Bielenberg construct the thoroughbred barn (HS-15) ca. 1883.
Buggy shed (HS-17) built	Kohrs and Bielenberg construct the buggy shed (HS-17) ca. 1883 or earlier. HS-17 was originally part of HS-2.
Cow stable (Non-extant structure D) built	Kohrs and Bielenberg construct the cow stable (non-extant structure D) sometime prior to 1883.
Front porch addition (HS-1)	Conrad Kohrs constructs a formal front porch to the eastern side of the ranch house (HS-1) sometime between 1866 and 1883. The new porch encompasses the front door and each window on either side.

**Constructed Water Features**

Kohrs-Manning Ditch	Conrad Kohrs and Judge Manning of Deer Lodge began to improve and extend a ditch system within and beyond the Kohrs-Bielenberg that was initiated by Johnny Grant in the early
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1860s. The new ditch system became known as the Kohrs-Manning Ditch. It drained the Deer Lodge River and adjacent minor drainages.

#### Front lawn irrigation system

Sometime between 1868 and 1881 an irrigation system was constructed on the eastern or front lawn of the ranch house. Water for the system was obtained from a ditch that drained Johnson Creek. The water was distributed to the front lawn by a wooden flume that drained into a half-barrel set into the ground. The irrigation system watered the front lawn and cottonwood trees.

### Small-Scale Features

#### Mounting block placed

An 1884 sketch of the residence of Conrad Kohrs by M. A. Leeson documents that a mounting block was placed in front of the eastern gate in the picket fence in front of the ranch house.

#### Horse ties placed

An 1884 sketch of the residence of Conrad Kohrs by M. A. Leeson documents that two horse ties were placed on either side of the eastern gate in the picket fence in front of the ranch house.

#### Picket fence erected

An 1884 sketch of the residence of Conrad Kohrs by M. A. Leeson documents that a picket fence surrounded the ranch house on its northern, eastern and southern sides.

#### Picket fence erected

An 1884 sketch of the residence of Conrad Kohrs by M. A. Leeson documents that a short picket fence controlled entrance and egress along the ranch entrance road that ran between the ranch house (HS-1) and the bunkhouse (HS-2).

#### Jack-leg fence erected

An 1884 sketch of the residence of Conrad Kohrs by M. A. Leeson documents that jack-leg fencing demarcated corrals adjacent to livestock structures and fenced larger pasture lands.

#### Post and rail fence erected

An anonymous 1866 sketch of Conrad Kohrs residence documents a post and rail fence to the north and east of the ranch house. Cattle appear both in front and behind the fence and its purpose is not known.

### **Archeological Sites<sup>87</sup>**

#### **Dump site (24PW651)**

A dump site located near the Museum Storage building may be associated with the historic Tom Stuart property and could date to the last quarter of the nineteenth century, or later.

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<sup>87</sup> More updated information on archeological resources is available in the new DRAFT Archeological Survey for Grant-Kohrs NHS.

## The Decline of the Open Range and Dissolution of the Kohrs-Bielenberg Ranch, 1887-1922

“The Cattle Industry, as it existed a quarter of a century ago, is no longer possible.”  
(Conrad Kohrs, “A Veteran’s Experience,” 1401)

### Introduction

Conrad Kohrs and John Bielenberg spent the next decade recovering from the winter of 1886-1887. While open range operations continued after 1887, like many other regional ranchers, Kohrs and Bielenberg began to plant and harvest more hay, and purchase additional winter feed to supplement what the open range could still provide. In addition, they also began to purchase substantial additional lands, adding to the home ranch and acquiring other Montana and northwest plains properties eventually accumulating over 25,000 acres. Due to the expansion of homesteading on the open range and the age of both Kohrs and Bielenberg, by the second decade of the twentieth century the ranch had begun to gradually liquidate its holdings.

### Historical Context

Kohrs and Bielenberg’s recovery from the previous winter’s losses was relatively swift. Rebuilding his several herds took a number of years and was aided in part by a substantial loan and the kindness of creditors. However just as importantly, Kohrs’ determination, hard work and astute cattle purchases made the recovery possible. Between 1888 and 1889, Kohrs made numerous trips to Washington, Oregon and Idaho to replenish his stock.<sup>88</sup>

In addition to replenishing his range stock, Kohrs began monitoring more closely the purebred cattle at the home ranch at the same time increasing the hay he purchased and the winter feed he could raise there. He also began the slow process of acquiring more grazing land adjacent to the home range. An advertisement in the *New Northwest* in May of 1887 announced that Kohrs and Bielenberg had cross-bred polled Angus, Short Horn Heifers, cross-bred Hereford and Short Horn Heifers for sale or lease “owing to being overstocked and our limited home range. ...It being a condition of such lease that the leasee shall have good range, sufficient hay and facilities to keep the breeds distinct [sic].” By 1890, Kohrs and Bielenberg had added approximately 7,705 additional acres to the home range. 5,630 acres were purchased from the Northern Pacific railroad, and 1,435 were appropriated under the Desert Lands Act of 1877. This act allocated up to 640 acres per individual with the requirement that the land would be irrigated within three years after purchase. The remaining 640 acres were acquired from half-brother Charles Bielenberg.<sup>89</sup>

Adjacent to the Deer Lodge home ranch and on its southwest side was the Kading property. In November of 1887, the West Deer Lodge Water Company was incorporated. C. J. Kading and six other individuals began the excavation of what would become known as the West Side Ditch. The ditch drew water from the Clark Fork River just south of the project area. Only two years later, the West Deer Lodge Ditch Company had built a ditch, dam, and flumes and claimed the water rights from it. The West Side Ditch Company was created in 1891 to provide water for agricultural, domestic and mining purposes. It acquired all the rights of the former West Deer Lodge Ditch Company.<sup>90</sup>

<sup>88</sup> Albright, *Historic Resource Study*, 77-80; Kohrs, *Autobiography*, 86-88; Kohrs, “A Veteran’s Experience,” 1329.

<sup>89</sup> Albright, *Historic Resource Study*, 77; Rosenberg, “Hard Winter Endurance,” 47.

<sup>90</sup> State Engineer’s Office, *Water Resources Survey, Powell County, Montana. Part 1: History of Land and Water Use on Irrigated Areas*, 38 (Helena: State Engineer’s Office, 1959); Scott Jackson to Douglas McChristian, February 27, 1997,

In 1888, the Northern Pacific Railroad acquired the Utah Northern railroad. A year later, Montana was admitted to the Union and became the 41<sup>st</sup> state. Joseph K. Toole was elected the first governor of the new state.<sup>91</sup>

In 1890, Kohrs constructed a major brick addition to the west side of the ranch house (HS-1) (See Figure 2-18). The addition included an east-west oriented two-story structure with full basement, living and dining rooms, kitchen, pantry and bedrooms. A furnace provided heat, a hydraulic ram brought in running water, and a carbide gas generator allowed gaslights to displace kerosene lamps in the home. Two years later, the entire ranch house was electrified. Three (brick?) cisterns, presumably dating to this period, are known to be buried adjacent to the ranch house (HS-1) and the garage / blacksmith shop (HS-3), although their exact date of construction is unknown. One is located just south of HS-1, a second adjacent to and south of the HS-1 porch, and a third just east of HS-3. During the same year the machine shed (HS-12) and granary (HS-18) were also erected. The granary was constructed on skids and designed to be moveable.<sup>92</sup>

It is likely that the lower yard area, including the lower garden, was also developed during the early 1890s after the construction of the rear brick addition. Augusta's lower garden reflected popular Victorian horticultural influences, including symmetrical plantings, geometric bed designs, and brightly colored annuals (See Figure 2-18).<sup>93</sup>

The winter of 1892-1893 was another hard one. Many local ranchers lost cattle while overwintering on the open range. Perhaps in response to the need for a greater stock of winter feed, John Bielenberg ordered 1,000 lbs. of Timothy seed and 10,000 lbs. of bran and shorts, presumably for use in the fields of the home ranch. The following year in 1894, Kohrs ordered 500 lbs. of red clover seed. However the decision to acquire new fields and place them under cultivation meant that these fields also had to be fenced. In 1893, Kohrs ordered 25,000 feet of barbed wire to fence his fields and pastures.<sup>94</sup>

Deer Lodge City formally shortened its name to Deer Lodge in 1894. During the same year, the first smelter at the Anaconda mine was built upriver from Deer Lodge and the Kohrs-Bielenberg Ranch.<sup>95</sup>

Between 1895–1900, Kohrs and Bielenberg continued to acquire substantial acreage surrounding the home ranch. Acreage was acquired for two primary purposes, to increase range land but also to acquire access to water sources and water rights for irrigation purposes. During this period, they acquired 11,311 acres of land adjacent to the home range. In addition, in 1899 they also purchased 14,000 acres of 'scrip' from homesteaders and redeemed them with Forest Service for thousands of acres of grazing land in the public domain. Grazing on government owned land was to become more important to ranchers particularly during the early twentieth century as it allowed them to substantially expand the carrying capacity of their ranches.<sup>96</sup>

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electronic mail communication; Cultural Landscape Inventory, "List of Landscape Features by Date and Era," (1997), np; McChristian, *Ranchers to Rangers*, np.

<sup>91</sup> National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, 7-9.

<sup>92</sup> Albright, *Historic Resource Study*, 81; Jim Taylor Interview with Con Warren, November 3, 1982; National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site. Note: The machine shed (HS-12) was moved in 1907 out of the right-of-way of the Milwaukee Railroad.

<sup>93</sup> Shapins Associates, "HS-1 Cultural Landscape Inventory," 12.

<sup>94</sup> Rosenberg, "Hard Winter Endurance," 54-55, 59-60, 60 notes.

<sup>95</sup> Kohrs, *Autobiography*, 96.

<sup>96</sup> Rosenberg, "Hard Winter Endurance," 59-61. Scrip was a document or receipt that verified the holder was entitled to receive an allotment of land. Its sale transferred that right to the purchaser.

Kohrs-Bielenberg records during this period document that the ranch began to sell more purebred Hereford calves. Rosenberg has noted that this represents the gradual transition from a steer or breeding bull operation to a cow and calf operation and an astute expansion of business.<sup>97</sup>

In 1899, Con and Augusta moved from Deer Lodge to Helena renting a townhouse there. John Bielenberg remained at the home ranch and continued to run the operations there. A year later, Kohrs purchased the same house. Con and Augusta continued to return to Deer Lodge for summers. Circa 1905, the wooden boardwalk paths surrounding the Ranch House (HS-1) were likely replaced with brick pavers.<sup>98</sup>

Sometime between 1890 and 1900, the conservatory addition to the south side of the ranch house (HS-1) was built. While it is likely that the conservatory addition was built before Conrad and Augusta Kohrs moved to Helena, the earliest documentary evidence, a dated historic photo, places the construction ca. 1900 or earlier.<sup>99</sup>

In 1900, a feed rack (HS-42) and a privy (HS-20) were erected. The privy was originally located at the west end of the ranch house (HS-1) but was moved to its present location in the early twentieth century.<sup>100</sup>

In 1901, Con and Augusta's daughter Katherine married Dr. Otey Y. Warren. Six years later, Conrad Kohrs Warren was born to Katherine and Otey. In October of the same year, Dr. Otey Warren died.<sup>101</sup>

Kohrs and Bielenberg continued to acquire land adjacent to the home ranch into the early twentieth century. Between 1900-1903, they acquired several hundred acres. By 1908, the total acreage surrounding the home ranch was approximately 22,307.<sup>102</sup>

While beavers had been largely extirpated from the Deer Lodge Valley for nearly a century, the few beavers that survived were noted to create problems with the extensive irrigation system and lowland fields and pasture on the Kohrs-Bielenberg ranch. Former employees recalled that in the first few decades of the twentieth century breaking up beaver dams was a periodic practice for ranch hands "otherwise, it would flood these fields."<sup>103</sup>

The general roundup of 1904 was the last large pooled effort on extensive open range lands by regional ranchers. After this date, only limited open range was used by ranchers. Perhaps in response to the decline of the open range, Kohrs and Bielenberg fenced approximately 30,000 acres of ranch land at the home ranch. "They had a little steam pile driver out there driving posts in and putting barbed wire. They had miles and miles of barbed wire around." Every subsequent fall "they made a ton of hay for every cow or beef animal they had on the place, which meant 30,000 tons of hay" (See Figure 2-19).<sup>104</sup>

<sup>97</sup> Rosenberg, "Hard Winter Endurance," 58.

<sup>98</sup> Kohrs, *Autobiography*, 98; Albright, *Historic Resource Study*, 88; Shapins Associates, "Grant-Kohrs Ranch National Historic Site, Historic Structure No. 1 (HS-1) Cultural Landscape," 70% Draft, 15.

<sup>99</sup> Shapins Associates, "HS-1 Cultural Landscape Inventory," 41; Lyndel Meikle, email communication, August 29, 2003.

<sup>100</sup> National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site.

<sup>101</sup> William Wallace Warren, "An American Family Called Warren" (Ms. on file at the Grant-Kohrs Ranch National Historic Site Library, Deer Lodge, Montana), 103.

<sup>102</sup> Albright, *Historic Resource Study*, 92, 96, 99.

<sup>103</sup> Rex Myers Interview with J. H. 'Harry' Gehrmann, January 4, 1982.

<sup>104</sup> Albright, *Historic Resource Study*, 96-98; Meikle, "GRKO: Ranching; Kohrs: 1887-1922," Subject – 1904 Roundup; Rex Myers Interview with J. H. Gehrmann, January 4, 1982. The 30,000 tons of hay was a cumulative total that was produced on all Kohrs and Bielenberg lands. A portion of this hay was brought to the home ranch to supplement the operations.

In advance of a proposed expansion line to the Anaconda Mine, the Northern Pacific Railroad drew a map of the proposed right of way through the Kohrs-Bielenberg Ranch, one that paralleled their pre-existing line (See Figure 2-20). Although it only shows structures that immediately surrounded the ranch house (HS-1), the 1907 map is the first detailed plan of the home ranch. The plan shows the existing Northern Pacific line and the location of the proposed Milwaukee Railroad extension. Also shown is the ranch house (HS-1) with its western and smaller northern and southern additions. Immediately adjacent to and north of the ranch house is bunkhouse row (HS-2) that appears as a single joined structure with the buggy house (HS-17) on its eastern end, and a chicken house (non-extant structure G) to the rear of its western end. Between the ranch house and bunkhouse row is an ice house (HS-5). To the rear and north side of bunkhouse row are roughly square fenced pens or lots. To the southwest of the ranch house is what is labeled a cow barn (HS-15). To the north of the bunk house row are two additional complexes. The first is composed of a cow barn (non-extant structure E), a horse stable (HS-7) with lean-to cow stable addition, and a separate free-standing cow stable (HS-10). To the rear and north of these stables is a relatively small fenced area. To the east of this is a larger fenced complex of which a horse stable [barn] (HS-11), open cow shed (non-extant structure C), and cow stable [barn] (non-extant structure D) form its western, northern, and eastern perimeters respectively. Abutting the north side of the open cow shed is another structure, the machine shed (non-extant structure B). Further north of these structures and in the direct right-of-way of the proposed new line is pictured another machine shed (HS-12). While fencing types are not labeled, most of the fencing surrounding the livestock structures may be jack-leg if only due to their presence near the domestic complex. A second fence type, presumably a picket fence, encloses the ranch house and garden on its northern, eastern and southern sides. Additional fenced fields and pastures are shown south of the ranch house domestic complex.<sup>105</sup>

Between 1907 and 1909, several new structures and additions were added to the home ranch. In 1907 two feed racks (HS-37 and HS-38) were erected. Circa 1908-1909, the cow shed (HS-13) was also erected.<sup>106</sup>

In the spring of 1908, a torrential rainfall caused substantial flooding of nearly every drainage in the Deer Lodge Valley. Perhaps as a future omen, the *Silver State* reported that “thousands of acres of meadow lands adjacent to the Deer Lodge [Clark Fork River] in this valley have been inundated by the present high water. The tailings from the Anaconda smelters will no doubt be spread over and settled on them, thus at least this year’s hay and grain crop will be practically valueless. The high land farmer is certainly in it this year.”<sup>107</sup>

By 1909, the Pacific Coast expansion line of the Milwaukee Railroad had extended its lines (HS-56) through the Kohrs-Bielenberg Ranch and Deer Lodge to the Anaconda Mine. As a result of its construction, three structures were removed altogether and two others were relocated. Half of the buggy shed (HS-17) was moved from its original location on the east end of bunkhouse row to the ranch house yard behind the present coal shed (HS-4), leaving the other half, the upper buggy shed (HS-2) in its original location. The machine shed (HS-12) was also moved westward out of the right of way of the railroad line. A machine shed (non-extant structure B), open cow shed (non-extant structure C), and cow stable (non-extant structure D) were taken down. The

<sup>105</sup> Chicago, Milwaukee, and St. Paul Railway of Montana, “A Partial Map of Deer Lodge Townsite and N.P.R.Y. Station Grounds, Powell County,” Prepared by the Office of the Division Engineer, Northern Pacific Railroad, February 25, 1907 (Ms. on file at the Grant-Kohrs Ranch National Historic Site Library and Archives, Deer Lodge, Montana); Albright, *Historic Resource Study*, 99-100, 185-188.

<sup>106</sup> National Park Service, “Grant-Kohrs Ranch / Warren Ranch,” National Register of Historic Places Registration Form, 7-18; National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site.

<sup>107</sup> *Silver State* (Deer Lodge, Montana, June 10, 1908), Vol. 19, No. 5.

Milwaukee Railroad also built a siphon (HS-57) that ran east west beneath their tracks and a siding for the Kohrs-Bielenberg Ranch just north of where the pump house (HS-86) is located. The Milwaukee Railroad excavated and loaded gravel there for use in the construction of its road bed. After the gravel pit was abandoned, the Milwaukee Railroad piled old railroad cars into the pit after stripping them of their running gear. The cars were then burned leaving scrap metal and other debris. The railroad eventually cleaned up the area.<sup>108</sup>

In 1974, J. H. Gehrmann drew a plan of the Kohrs-Bielenberg Ranch from memory of what the central domestic and ranching complex looked like in 1904. The map appears to be accurate in terms of the general location of buildings and features, but may also incorporate information from the post-1909 period, after the Milwaukee Railroad's line came through the project area. The map he drew noted that the northern portion of the ice house (HS-5) was used as a slaughterhouse. It is not clear whether this was a separate structure that abutted the ice house, or an addition built onto its northern end (See Figure 2-21).<sup>109</sup>

In 1909, Congress authorized the Enlarged Homestead Act. This act enabled potential settlers to settle up to 320 acres of land if they cultivated at least 1/8 of it in agricultural crops other than native hay. Three years later in 1912, the period for proving a homestead was reduced from five to three years. A direct result was that between 1909 – 1920s a substantial number of “nesters” or “dry farmers” emigrated to the northern plains of Montana. Many of them eventually settled on the open ranges formerly used by cattle ranchers. By the mid-19-teens, the open range had become “pretty well fenced.” Looking back on this period of open range decline, Conrad Kohrs did not seem particularly bitter but had a rather fateful perspective.<sup>110</sup>

The decline of the range cattle industry in the Northwest dates from the inception of the dry-farming era several years ago. Settlers have swarmed over the range, forcing a majority of those who were previously engaged in the cattle business to [illegible] because of inadequate pastures. During the last four years, owing to an unusual rainfall nearly all over the area dry farmers have met with marked success. ... As a general thing crops have been bountiful but my long experience in the [illegible] warrants the prediction that unless the climate has permanently changed much disappointment is ahead for the dry farmers.<sup>111</sup>

The turn to raising increasingly more winter feed crops from the last decade of the nineteenth century into the early twentieth century and the stimulation that World War I gave to wheat prices necessitated a need for regional grain processing equipment. Circa the 19-teens Ben Goldie, a local farmer in Deer Lodge Valley, purchased a 32-inch separator and steam engine. His mechanized thresher served the needs of the entire valley.” There wasn’t a whole lot of grain raised in this valley, but there was enough so that he used to get his outfit together. And he’d start out about the middle of August, and he’d go clear up to Anaconda, and then he’d thrash everybody all the way back down to Deer Lodge. ... He thrashed the whole valley for, gee, I don’t know, 35 or 40 years” (See Figures 2-22 through 2-26).<sup>112</sup>

<sup>108</sup> *Cottonwood Chronicle* (Deer Lodge, Montana, June 10, 1908), Vol. 2, No. 1, 1, 8; National Park Service, “CLI,” Revised Draft, 8; Bill Stalker Interview with Con Warren, 12/1989.

<sup>109</sup> J. H. Gehrmann, “Kohrs Ranch 1904. Drawn from Memory in 1974” (1974). GRKO 15999 Series 1, Tape 7, Harry Gehrmann with Rex Meyers, January 4, 1982; Map dates 1974 (Ms. on file at the Grant-Kohrs Ranch National Historic Site Library, Deer Lodge, Montana)

<sup>110</sup> Rosenberg, “Hard Winter Endurance,” 61; Marie MacDonald, *After Barbed Wire: A Pictorial History of the Homestead Rush into the Northern Great Plains, 1900-1919* (Glendive, Montana: The Frontier Gateway Museum, 1983), 5; Warren, “American Family,” 12.

<sup>111</sup> Kohrs, “A Veteran’s Experience,” 1399.

<sup>112</sup> Rex Myers Interview with Con Warren, 1980, Tape 5, Side B.

Between 1910 and 1915, several new structures were erected at the home ranch. In 1910 the metal granary (HS-23) was erected. The structure was moved to its current location ca. 1935. Two years later a frame lean-to addition to the ice house (HS-5) was constructed. Lastly in 1915, the coal shed (HS-4) was erected.<sup>113</sup>

Sometime during the 19-teens, the Kohrs-Bielenberg Ranch maintained chickens and a flock of turkeys. Helen L. Jorgenson, a housekeeper for Augusta Kohrs, was allowed to have a flock of turkeys at the home ranch while she worked there. A turkey house was constructed sometime during this period and was located near the chicken house (non-extant structure G) and the granary (HS-6).<sup>114</sup>

By 1916, the line of the Milwaukee Railroad that ran through the Kohrs-Bielenberg Ranch was electrified with a 3,000 volt DC system.<sup>115</sup>

In 1919, a severe drought hit the Deer Lodge Valley. The drought virtually ceased the homestead rush for land in Montana's northern plains however it also directly impacted operations at the home ranch. When the spring supplying water to the ranch house via a hydraulic ram went dry, Kohrs was forced to dig a well in the basement of the Ranch House. Because of the dry springs and the constant use of the hydraulic ram, Con Warren later remembered that the entire area north and west of the ranch house (HS-1) was "dry" when he was growing up.<sup>116</sup>

After the death of Con and Augusta's only son in 1901, the Kohrs and John Bielenberg slowly began to prepare for the eventual closing of ranching operations. In 1908, Con, Augusta and John formed a corporation called the Kohrs and Bielenberg Land and Livestock Company that owned the Kohrs-Bielenberg Ranch. Dissolution of the substantial land holdings of the Kohrs-Bielenberg Ranch proceeded informally and swiftly in the 19-teens, prompting Conrad Kohrs to note that "by 1915 we had all sold except remnants." With the exception of approximately 1,000 acres surrounding the home ranch and stock from the Helena Hereford herd, by 1924 the Grant-Kohrs Ranch had been nearly entirely dispersed. The Kohrs and Bielenberg Land and Livestock Company was fortunate to sell off a majority of their lands prior to the onset of the depression effected prices.<sup>117</sup>

Sometime prior to 1920, a smoke house was constructed in the approximate location of the extant coal shed (HS-4). Con Warren remembered being told about the smokehouse. "They had a smokehouse right where the coalhouse is in back of the house there. They had a smokehouse there, but it burned down. ...Johnnie described it to me as a big tall building. Not too big, probably ten feet square, at the bottom, and then it ran up two stories, I guess, and they had a ladder in there. ...Then they used that smokehouse to smoke the hams and bacons in."<sup>118</sup>

Conrad Kohrs died in 1920 at the age of 85. Shortly thereafter, in 1922 both John Bielenberg and John Boardman died. The Conrad Kohrs Trust Company, with Augusta Kohrs as president, took over active management of the ranch.<sup>119</sup>

<sup>113</sup> National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site.

<sup>114</sup> Chris Ford Interview with Jean Dell and Gladys Sheriff, August 31, 1998; Albright, *Historic Resource Study*, 210.

<sup>115</sup> *Cottonwood Chronicle* (Deer Lodge, Montana, June 2002), Vol. 1, No. 2, 8.

<sup>116</sup> Conrad Kohrs to John Bielenberg, June 16, 1917; MacDonald, *After Barbed Wire*, 5; Rex Myers Interview with Con Warren, 1980, Tape 11, Side B; Jim Taylor Interview with Con Warren, November 3, 1982.

<sup>117</sup> Albright, *Historic Resource Study*, 98-99, 101-104; Kohrs, *Autobiography*, 99.

<sup>118</sup> Rex Myers Interview with Con Warren, 1980, Tape 11, Side B.

<sup>119</sup> Albright, *Historic Resource Study*, 103; Rex Myers Interview with Con Warren, 1980, Tape 6, Side B.



Circa 1915-1922, the furnace in the ranch house was converted from wood to coal.<sup>120</sup>

A gravel / sand pit located north of and adjacent to the Deer Lodge cemetery may have been initiated ca. 1921. Ole Berg,<sup>121</sup> an employee who worked for Con Warren, remembered that sand was removed from the pit.

### Landscape Characteristics by Chronological Period

#### **Natural Systems and Features**

Water resources	Kohrs and Bielenberg continued to utilize the existing permanent and seasonal drainages by constructing new, and cleaning and maintaining old irrigation ditches.
Cisterns dug	In response to the arid environment of western Montana, Kohrs and Bielenberg constructed underground cisterns, ca. 1890, surrounding the ranch-house in an effort to conserve valuable water.
Well dug	In response to a prolonged drought ca. 1919, Kohrs and Bielenberg dug a well in the basement of the ranch house (HS-1).

#### **Spatial Organization**

Formal domestic space	The formal domestic space surrounding the ranch house and defined by a picket fence and trees, grass and garden continued to differentiate the private / family sphere from the larger working ranch.
Agriculture	Fields under cultivation were placed adjacent to or nearby local drainages due to the richer bottomland soils, and the ability to irrigate crops. Dryland farming was not a viable option in western Montana.
Garden	Augusta Kohrs continued to maintain the flower garden just south of and adjacent to the ranch house (HS-1).

#### **Land Use**

Mining	A gravel / sand pit north of and adjacent to the Deer Lodge cemetery was likely initiated ca. 1921.
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<sup>120</sup> Micki Farmer Interview with Con Warren, May 5, 1978.

<sup>121</sup> Cheryl Clemmensen to Jack Yates, Abandoned Mine Specialist, February 23, 1993.

Grazing	Kohrs and Bielenberg use parts of the home ranch as an open range upon which to graze their growing cattle herds.
Agriculture	Kohrs and Bielenberg expanded their agricultural production at the home ranch. Wheat, oats and hay was farmed and was used as livestock feed to supplement open range grazing. Timothy and clover was also cultivated.
Settlement	The Kohrs and Bielenberg Ranch was one of numerous settlements spread throughout the larger Deer Lodge valley.

### **Cultural Traditions**

Irrigation Ditches	Between 1887 and 1922, Kohrs and Bielenberg continued to maintain, use and expand their extensive irrigation ditch system.
Jack-leg fencing	Between 1887 and 1922, Kohrs and Bielenberg continued to use and maintain traditional jack-leg fencing throughout their ranch.

### **Circulation**

Milwaukee Railroad line	The Milwaukee Railroad constructs a line through the Kohrs-Bielenberg Ranch west of and adjacent to the existing Northern Pacific Railroad line ca. 1908-1909.
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### **Vegetation**

Crops	Kohrs and Bielenberg continued to cultivate oats, hay and other important grains including red clover. The cultivated fields were most likely located in the rich bottom lands adjacent to the Deer Lodge River.
Flowers	August Kohrs planted and tended a new garden west of and adjacent to the ranch house (HS-1) in the lower yard area ca. 1890. This garden produced flowers for the Kohrs family.

### **Buildings and Structures**

Ranch house (HS-1) western addition	Kohrs constructs a major two-story with basement brick addition to the western side of the ranch house (HS-1) in 1890.
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Machine shed (HS-12) built	Kohrs and Bielenberg construct a machine shed (HS-12) in 1890.
Granary (HS-18) built	Kohrs and Bielenberg construct a movable granary on skids (HS-18) in 1890.
Feed rack (HS-42) built	Kohrs and Bielenberg construct a feed rack (HS-42) in 1900.
Privy (HS-20) built	Kohrs and Bielenberg construct a privy (HS-20) in 1900.
Ranch house (HS-1) conservatory addition	Kohrs constructs the conservatory addition to the southwest corner of the original ranch house (HS-1) sometime between 1890 - 1900.
Machine shed (non-extant structure B) built	Kohrs and Bielenberg construct a machine shed (non-extant structure B) sometime prior to 1907.
Open cow shed (non-extant structure C) built	Kohrs and Bielenberg construct a open cow shed (non-extant structure C) sometime prior to 1907.
Cow stable (non-extant structure D) built	Kohrs and Bielenberg construct a cow stable (non-extant structure D) sometime prior to 1907.
Cow barn (non-extant structure E) built	Kohrs and Bielenberg construct a cow barn (non-extant structure E) sometime prior to 1907.
Chicken house (non-extant structure G) built	Kohrs and Bielenberg construct a chicken house (non-extant structure G) sometime prior to 1907.
Feed rack (HS-37) built	Kohrs and Bielenberg construct a feed rack (HS-37) sometime between 1907-1909.
Feed rack (HS-38) built	Kohrs and Bielenberg construct a feed rack (HS-38) sometime between 1907-1909.
Cow shed (HS-13) built	Kohrs and Bielenberg construct a large 'L'-shaped cow shed (HS-13) sometime between 1908-1909. This was presumably built to replace the stock barn lost to the construction of the Milwaukee Railroad.
Buggy shed (HS-17) moved	As a result of the construction of the Milwaukee Railroad line through the Kohrs-Bielenberg Ranch in 1908-1909, half of the buggy shed (HS-17) was relocated from its original location on the eastern end of bunkhouse row to the ranch house lower yard behind the coal shed (HS-4).

Machine shed (HS-12) moved	As a result of the construction of the Milwaukee Railroad line through the Kohrs-Bielenberg Ranch in 1908-1909, the machine shed (HS-12) is moved westward out of the right of way.
Machine shed (Non-extant structure B) removed	As a result of the construction of the Milwaukee Railroad line through the Kohrs-Bielenberg Ranch in 1908-1909, the machine shed (non-extant structure B) is removed.
Open cow shed (Non-extant structure C) removed	As a result of the construction of the Milwaukee Railroad line through the Kohrs-Bielenberg Ranch in 1908-1909, the open cow shed (non-extant structure C) is removed.
Cow stable (Non-extant structure D) removed	As a result of the construction of the Milwaukee Railroad line through the Kohrs-Bielenberg Ranch in 1908-1909, the 193 x 20 foot cow stable (non-extant structure D) is removed.
Granary (HS-23) built	Kohrs and Bielenberg construct a round metal granary (HS-23) in 1910. This structure was moved to its current location ca. 1935.
Ice house (HS-5) addition	Kohrs and Bielenberg construct a frame lean-to addition to the ice-house (HS-5) in 1912.
Smokehouse built	Kohrs and Bielenberg construct a smoke house in the location of the coal shed (HS-4) sometime prior to 1915.
Smokehouse burned	The smokehouse that formerly stood in the location of the coal shed (HS-4) is destroyed by fire sometime prior to 1915.
Coal shed (HS-4) built	Kohrs and Bielenberg construct a coal shed (HS-4) in 1915.

### **Constructed Water Features**

West side ditch excavated	Ca. 1887-1889, C. J. Kading and six other individuals begin to excavate a series of irrigation ditches that would become known as the West Deer Lodge Ditch. The ditch drew water from the Clark Fork River and a smaller drainage named Lost Creek. The West Side Ditch Company, as it would become known, was formally incorporated in 1917.
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Brick (?) cisterns built	Three brick cisterns are known to be buried adjacent to the ranch house (HS-1). Although their exact date of construction is not known, one or more likely date to the construction of the 1890 brick wing addition to the ranch house (HS-1).
Beaver dams removed	Ca. 1904, Kohrs-Bielenberg had beaver dams removed from drainages and irrigation ditches.
Siphon (HS-57) built	The Milwaukee Railroad constructs a siphon (HS-57) that ran in an east-west direction beneath their line in 1908-1909. The siphon was located just east of the ranch house (HS-1).
Well dug	Kohrs and Bielenberg dig a well in the basement of the ranch house (HS-1) ca. 1919-1920 after a prolonged drought.

### **Small Scale Features**

Barbed wire fencing	Conrad Kohrs purchases 25,000 feet of barbed wire in 1893, presumably for fencing his fields and pastures on the home ranch. By 1904, the entire Kohrs – Bielenberg home ranch was fenced in barbed wire. The barbed wire was likely used to keep his own cattle within (and other cattle out of) a reduced home range, and also to keep livestock out of fields under cultivation.
Borrow pits excavated	The Milwaukee Railroad excavates several borrow pits adjacent to their line ca. 1908-1909 to obtain gravel for use in the construction of their road bed. The borrow pits are subsequently used as a dumping ground for railroad debris.
Gravel / sand pit excavated	Ca. 1921, a gravel / sand pit is initiated north of and adjacent to the Deer Lodge cemetery.

### **Archeological Sites<sup>122</sup>**

Dump site (24PW657)	A dump site located near the River Bridge may be associated with the Kohrs-Bielenberg or Warren eras and could date from the last quarter of the nineteenth century to the first half of the twentieth century.
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<sup>122</sup> More updated information on archeological resources is available in the new DRAFT Archeological Survey for Grant-Kohrs NHS.

Dump site (24PW693)

A dump site located near the HS-88 Pump may be associated with the Kohrs-Bielenberg or Warren eras and could date from the last quarter of the nineteenth century to the first half of the twentieth century.

## **The Conrad K. Warren Era: Rebuilding the Ranch and the application of scientific advances in veterinary medicine, breeding, feed, crops and mechanical systems, 1922-1940**

### **Introduction**

Conrad Warren began to be employed on the Kohrs ranch during the mid-1920s and by 1932 was in charge of its daily operations. Under Warren's tenure, the Kohrs ranch expanded from a dwindling herd of commercial Hereford cattle, to a respectable sized herd of purebred registered Hereford and a growing herd of purebred registered Belgian draft horses. In order to accommodate his growing interests, Warren also actively purchased land adjacent to the home ranch and rehabilitated and expanded the existing irrigation system, turning once barren and underproductive fields into well-watered hay and grain fields.

### **Historical Context**

Between 1924 and 1931, the Conrad Kohrs Ranch was managed by the Union Bank and Trust, with Augusta as president, and was effectively in a caretaker status with operations neither expanding or shrinking. From 1926 to 1928, Con Warren began spending summer's working as a ranch hand and living in the ranch house. Shortly after Con's arrival at the ranch, ca. 1928-1930 he helped to build the gravel road that ran westward on the north edge of the Stuart field and paralleling the feed bunks (HS-45 and HS-46). The road crossed the Kohrs-Manning Ditch and the Clark Fork River and led to the west side. Subsequent to the construction of the road ca. 1930, two bridges were constructed; the Slough Bridge (HS-90) with wood abutments that spans the Kohrs-Manning Ditch on the western edge of the south pasture; and the Clark Fork Bridge (HS-89), a pony truss bridge with 10 timber poles and concrete retaining walls over the Clark Fork River. Another bridge (HS-55) was likely built in association with this road where it crossed the Kohrs-Manning Ditch. Two other structures were built in 1930. The storage shed (HS-34) was designed to be a portable sheep wagon and tack room, and was most likely moved to its current location when the west feed lots were constructed. In addition, a feed rack (HS-36) was also erected. The structure was moved to its current location at an unknown date.<sup>123</sup>

By the early twentieth century, the Clark Fork River had begun to show the effects of copper mining upstream. When Con came to the ranch in the 1930s, "the river [Clark Fork] was coffee colored and three times as thick with no fish. There was yellow slime down in the willows. If a cow died down there its bones turned green from copper sulfate." Particular areas of the Clark Fork River floodplain also showed the effects of contamination. The land by slough bridge (HS-90) was "kind of a yellowish colored dirt with essentially nothing growing on it and 'lots' of animal carcasses lying around. [The] bones were all bluish-green." A visitor to the ranch in 1937 commented that "water is plentiful in the near-by Deer Lodge River. But this, like many other Western rivers, is contaminated by discharges from nearby mines which poison the soil and kill growing crops."<sup>124</sup>

Conrad Warren assumed the control and management of his grandfather's ranch in late 1932. He immediately began to make his own impact on the operation focusing on acquiring more land to

<sup>123</sup> Albright, *Historic Resource Study*, 107; John Albright Interview with Con Warren 1975; Micki Farmer Interview with Con Warren, January 1978; National Park Service, "Grant-Kohrs Ranch / Warren Ranch." National Register of Historic Places Registration Form, 7-11; National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site.

<sup>124</sup> Interview with Con Warren, May 9, 1985; Jim Taylor Interview with Con Warren, May 20, 1988; Charles Morrow Wilson, "6,000 Acres and a Microscope," *Scribner's Magazine*, Vol. 102, No. 3 (September 1937), 45.

support a growing herd, rebuilding the Hereford livestock herds, and investing in new ranch facilities. Throughout the early 1930s, Warren began to buy up land adjacent to the home ranch including the Larabee Pasture (near the Fairgrounds), 1,100 acres from Ben Helby, additional lands from Charlie Jensen, and subsequently the Evans place.<sup>125</sup>

Prior to 1932 (and likely dating to the last quarter of the nineteenth century), all of the log and board and batten buildings on the Kohrs-Bielenberg Ranch were whitewashed every year. "Religiously. It was kind of a sanitary thing. Helped rid us of lice and all, they thought. Of course, I never did it after I worked that ranch. They had a special mix too. Johnny [Bielenberg] threw in glue to make the stuff stick. Of course you've seen how thick it built up." The buildings were sprayed with whitewash with a portable cart that contained a barrel pump. Many of the white buildings had gray or red trim paint. In addition, many gates were also painted red. "I never [whitewashed the buildings] when I ran the ranch. Sort a let things go or painted them." Instead, Warren painted the ranch buildings red. "I used green paint only once. It faded and had lead in it so I switched everything over to red mineral paint."<sup>126</sup>

During the early 1930s, many of the old Kohrs – Bielenberg era buildings were torn down or renovated to meet the changing function of the ranch. Substantial improvements were made to the bunkhouse including new flooring and chicken wire lath and stucco plaster. Old buildings and fences were torn down including a 16 x 50 foot shed with thatched roof, four small feed bunks, and other log structures. The horse barn (HS-11) north of bunkhouse row received new siding. Sometime in the mid-1930s, Warren accomplished substantial renovations to the Ranch House (HS-1) landscape. Ca. 1934 he replaced the deteriorating picket fence surrounding the Ranch House (HS-1). The new fence enclosed a larger area, including the service and laundry areas north of and adjacent to the residence. Fill was subsequently added to this service area to create a lawn adjacent to the north side of the house. During the same year he also constructed stone retaining walls along the western side of the house, both north and south of the rear 1890 brick addition. In addition, the stone steps and an associated wooden handrail were installed in the south retaining wall of the flower garden by Con Warren (See Figure 2-30). Prior to that time, the garden was entered from the eastern end. The old four stall dairy attached to the old Draft Horse barn "blew over in 1931 or 32." Between 1932-1934, several new structures were built. Much of the new construction during this period reflected an expansion of the Kohrs-Bielenberg ranching complex westward towards the slough bridge (HS-90). As a result two new ranching clusters were constructed, the west corral yard, and the west feedlot. In 1932, a new dairy (HS-9), feed storage house (HS-31), manure pit (HS-39), and three feed bunks (HS-45, HS-46 and HS-52) were erected (See Figures 2-31 and 2-32). The following year, three stock shelters (HS-24, HS-27 and HS-29), a hay feeder (HS-26), a feed storage house (HS-28), a squeeze chute (HS-47), and two feed bunks (HS-48, HS-49) were erected. In 1934, a privy (HS-8), three stock shelters (HS-25, HS-32 and HS-33), and a squeeze chute (HS-53) were erected.<sup>127</sup>

Warren took control of the home ranch in the middle of a severe region-wide drought. The drought effectively hindered many of his plans for the expansion of cultivation during the first half of the 1930s. "We had grasshoppers, too. I had forgotten what year it was '31 or '32. The grasshoppers moved in and they cleaned the valley. There was no hay, no grass, no leaves on the

<sup>125</sup> Douglas C. McChristian, *Ranchers to Rangers: An Administrative History of Grant-Kohrs Ranch National Historic Site* (National Park Service, Rocky Mountain Cluster, 1977), 4; John Albright Interview with Con Warren, 1975; Albright, *Historic Resource Study*, 109.

<sup>126</sup> Charles Snell Interview with Con Warren, June 9, 1975; Nick Scrattish Interview with Con Warren, June 19, 1979.

<sup>127</sup> National Park Service, Historic Structure Survey Forms, Grant-Kohrs Ranch National Historic Site; Lyndel Meikle Interview with Con Warren, May 7, 1984; Peter Snell Interview with Con Warren, September 11, 1975; Albright, *Historic Resource Study*, 110-111; Shapins Associates, "HS-1 Cultural Landscape," 70% Draft, 15; National Park Service, "National Register of Historic Places Registration Form, Grant-Kohrs Ranch, National Historic Site," 7-34.



trees, no anything. ...The market was terribly depressed about the time." "Back in the big drought years, the Depression, fan weed was a problem. ...Weeds take over in droughts." Early in Warren's tenure, haying was done with a derrick and hayboat and required a crew of 25-30 men, including mowers, rakers, stackers, pitchers to accomplish. The first year of haying (ca. 1932) Warren "had a hard time putting up 100 tons." Between 1931 and 1936, cultivating any amount of winter feed was difficult at best (See Figures 2-33 and 2-34). "In 1936 it was impossible to grow enough hay on the place [home ranch] to feed the livestock, limited as it was." During the extended drought, Warren was forced to drive his cattle to Helmsville for grazing grounds. In addition to grain crops, Warren also grew his own potatoes, frequently selling any surplus. The potatoes were grown on the West Side and "up at the north end, on land he sold to Olson's."<sup>128</sup>

In terms of livestock, Warren intended to makeover the contingent of old work horses. A number of Clydes and Shires were at the Kohrs-Bielenberg Ranch when Con arrived in the late 1920s. For whatever reason, Warren never liked the Clydes or Shires. To remedy the situation, Warren began to build up a new draft horse herd making his first purchases of Belgian stallions from Earle Brown in 1932. However, complications entered the breeding process. "That's why I got the Belgians. ...I went over to A. B. Cook's at Townsend and bought a stallion. A Belgian stallion, and we bred these mares [20 work horses already at ranch] but none of them settled so we had the vet come 'open them up.' I couldn't get any of the mares settled so I began buying young Belgian mares and I thought if, we were going to have mares they might as well be purebred and have registered colts." Warren began to practice artificial insemination of Belgian mares in the early to mid-1930s, making the ranch probably one of the first in the country to use such methods. "I had the largest herd of imported Belgian mares in America by 1936. ...I was pretty well in the Belgian business up until after World War II." By the late 1930s, the Warren ranch and Con Warren in particular was recognized in Montana and the larger West for his efforts in introducing the Belgian breed. "He has become a significant pioneer in introducing a utility breed of thoroughbred horses (Belgians) in the West. He has, through extensive sale of these Belgians, supplied Montana with a creditable foundation of good horseflesh. ...Last year [1936] Con built up his basic herd to about fifty brood mares, three stallions, and four draft teams, all registered Belgians." As Warren recalled much later, "the horse business kind of saved us during the depression" when prices for beef cattle were quite low (See Figure 2-35, 2-36 and 2-37).<sup>129</sup>

With his promotion to ranch manager in late 1931, Warren had inherited a largely mixed herd of commercial Hereford and Durham (Shorthorn) cattle. The products produced by the dairy cows were sold to the Deer Lodge Creamery throughout the decade. However in 1935, Warren established the foundation for his own breeding herd of purebred registered Herefords making his first purchase of a bull and ten heifers. This was followed by additional purchases of bulls and heifers the following year. As his registered herd slowly grew, Warren began to supply local and regional ranchers with bulls and heifers. As one visitor to the ranch in 1937 noted, "he has made extensive sale of purebred beef-strain bulls and heifers to ranches throughout Montana and other Western states. ...Con Warren has reliable grass and enough land under irrigation to carry about a hundred head of horses, about five hundred cattle." As the Hereford population grew, Warren separated his cattle into two distinct herds, a breeding herd composed of a few bulls and several hundred heifers that was kept separate from other cattle, grazed upon fenced pastures at the home

<sup>128</sup> John Albright Interview with Con Warren, 1975; Interview with Con Warren, April 13, 1989; Interview with Con Warren, May 9, 1985; James O'Barr Interview with Con Warren, April 5, 1985; Gordon Interview with Con Warren, July 29, 1976; Randi Bry Interview with Con Warren, January 26, 1989.

<sup>129</sup> Interview with Con Warren, May 9, 1985; Holm/Haviland Interview with Con Warren, December 1, 1976; Rex Myers Interview with Con Warren, 1980, Tape 5, Side A; Lennie Jarrett Interview with Con Warren, March 4, 1983; Wilson, "6,000 Acres," 44-45; Albright, *Historic Resource Study*, 115.

ranch and fed during the winter, and a market herd composed of young cattle and steers that was allowed to graze upon leased or common range.<sup>130</sup>

In order to maintain the quality of his stock, both of his purebred registered Belgian and Hereford herds required extensive management (See Figures 2-38 through 2-41). For Warren this meant maintaining detailed administrative records of siring and birth, and also the seasonal chores of artificial impregnation, foaling and calving, nursing care, meeting the variable feeding requirements for each type of animal by breed and age, and monitoring the general care and health of all animals. Warren was one of the first ranchers in Montana to practice artificial insemination. While he preferred to let his Hereford cattle breed on their own, the sire value of his Belgian mares meant that Warren often supplemented the natural process. "Con Warren keeps a microscope in his shed room instrument cabinet, [and] shoots slides as the work progresses." Warren also regularly inoculated and tested his livestock against the major health risks of the period including Black Leg and Bang's disease (brucellosis), particularly during the regional epidemic ca. 1931-1936.<sup>131</sup>

Warren also began to raise hogs in the 1930s. He built a hog house and hog run (yard) "all west of the Thoroughbred barn." To serve the hog complex, sometime in the 1930s Con moved the metal granary (HS-23) to its present position.<sup>132</sup>

In 1934, Con and his wife Nell received 71/100 of an acre and a new house (HS-58) and garage (HS-61) given to them by Warren's grandmother, Augusta Kohrs (See Figure 2-42 through 2-46). The design, a colonial cottage style promoted as a "country home for apartment living," came from New York architect Lewis Welsh and was previewed in the June 1933 issue of *Women's Home Companion*. The magazine strongly supported the Domestic Economy movement of the first quarter of the twentieth century and the house design reflected a push for reforms in health, cleanliness, and comfort in the home. Before the house was built, Con dug a well "right in the corner there, and we were going to have the well inside the basement. And then one morning in 1934, why, the well was dry." The well (beneath HS-88) was subsequently dug "outside the picket fence out there." Warren excavated the basement for the house with a horse team and scraper and dug the rest by hand. A local contractor, Ben Goldie, poured the concrete foundations for the house and garage and erected the structures. When completed, the house was a 1 ½ story frame and stucco structure with a screened in porch on the east side and a breezeway connecting the garage and house. The *Silver State Post* recorded the construction in the spring of 1934.<sup>133</sup>

NEW RESIDENCE GOING UP ON KOHR'S RANCH. Conrad Warren is ... erecting a new four-room house, 31 x 55 feet, which will contain all modern improvements... Contractor Ben Goldie is constructing the building ... and E. P. Koontz putting in the plumbing.<sup>134</sup>

The Warren residence compound was enclosed by a white picket fence on its northern and western sides. Con and Nellie Warren both landscaped the immediate area surrounding their new

<sup>130</sup> National Park Service, "National Register of Historic Places Registration Form: Grant-Kohrs Ranch / Warren Ranch," 7-31; Albright, *Historic Resource Study*, 109; Wilson, "6,000 Acres," 44, 47-48.

<sup>131</sup> Wilson, "6,000 Acres," 45-46; Con Warren, "Results of testing for contagious abortions (Bang's) of Con's Hereford, Durham and Dairy herds," 1931-1936. Personal Papers, Con Warren, Series 2, Subseries G. (Ms. at the Grant-Kohrs Ranch National Historic Site, Deer Lodge, Montana).

<sup>132</sup> Peter Snell Interview with Con Warren, September 11, 1975.

<sup>133</sup> Cultural Resources & National Register Program Services, "Conrad and Nellie Warren Residence, Historic Structure Report, Grant-Kohrs Ranch, National Historic Site, Montana [Draft 1]," 2, (Santa Fe: Intermountain Support Office, 2001); Albright, *Historic Resource Study*, 115; Rex Myers Interview with Con Warren, 1980, Tape 11, Side B.

<sup>134</sup> *Silver State Post* (Deer Lodge, Montana, April 12, 1934).

residence. Grass and a variety of trees were planted within the picket fence. Warren attempted to cultivate native plantings around his house. He planted a mountain ash, black birch and native spruce. "The two Colorado spruce were wedding presents, so I had to plant them." Nellie Warren also had a small flower and vegetable garden somewhere west of the residence. As Patricia Warren recalled, "Because of the well, we could create a green oasis around the house – rustling cottonwoods and silver poplars that threw cooling shade on the roof and the green lawn. My mother could tend a beautiful flower garden where the hollyhocks and delphiniums were taller than she. The sprinkler made little rainbows in the sunshine as it watered a big vegetable garden; I was sent there every day to pull fat carrots or pick ears of corn." The garden contained a sweet pea trellis. By the late 1930s, additional small scale features present within the Warren residence compound included a swing set adjacent to and on the southeast corner of the house, a doghouse, a clothesline, and a flagstone path and small bridge that crossed the north fork of Johnson Creek (See Figures 2-47 through 2-53).<sup>135</sup>

Once his new house was built, Con and Nell purchased two refrigerators, one for his house and one for the cook house. Soon afterwards, Warren quit "putting up ice" in the ice-house (HS-5). The old ice pond was "down below there right along Johnson Creek so we could turn Johnson Creek into it." Warren remodeled the old ice house to make it into a "harness room." Two windows were added one on either side of the front door and steps.<sup>136</sup>

At the ranch house (HS-1), the picket fence surrounding it was replaced by Warren in 1934 with pine fence. In addition, in 1934 the trough irrigation system that watered the front or east lawn of the ranch house and south flower garden ceased to be used. Several historic photographs of the immediate vicinity of the ranch house (HS-1) and lower yard during this period document Warren's effort to clean up and repair his grandparents former residence (See Figure 2-54 through 2-60).<sup>137</sup>

The construction of new structures to accommodate the changing needs of the ranch continued into the mid-1930s. In 1935 the blacksmith shop / garage (HS-3), granary / roller mill (HS-6), brooder house (HS-21), chicken house (HS-22), cattle scale (HS-35), and squeeze chute (HS-41) were erected. The old granary ceased to be used because it leaked grain. Warren subsequently moved the chicken yard in order to build the new granary and roller mill (HS-6). The new granary could hold up to 4,000 bushels of wheat and had an elevator mechanism that came from an old threshing machine. The large number of cattle sheds, feed racks and barns at the home ranch were necessitated by the numerous small breeding herds that were maintained. "Con would have 5 or 6 breeding herds, with 45 or 50 cows per head. In this way he was able to keep track of breeding." By 1937 at the latest, Warren had also built an as yet unidentified structure due west of and adjacent to the Home Ranch. Historic photographs (See Figures 2-35 and 2-57) document that this single story frame structure had two windows on its south side and may have been approximately 10 x 15 feet in dimension. The structure is painted white, appears to be relatively new and rests on a concrete foundation.<sup>138</sup>

<sup>135</sup> James O'Barr Interview with Con Warren, April 5, 1985; John Albright Interview with Con Warren, 1975; Stalker/Bry Interview with Con Warren, August 1988; Cultural Resources & National Register Program Services, "Conrad and Nellie Warren Residence," 38.

<sup>136</sup> Rex Myers Interview with Con Warren, 1980, Tape 11, Side A; Micki Farmer Interview with Con Warren, May 5, 1978.

<sup>137</sup> Randi Bry Interview with Con Warren, November 15, 1983; Interview with Con Warren, May 3, 1975.

<sup>138</sup> Bill Stalker Interview with Con Warren, August 24, 1989; Albright, *Historic Resource Study*, 111; Neysa Dickey Interview with Con Warren, February 13, 1991. While this quote suggests that the ratio of bulls to cows was up to 1/50, a 1/25 ration was more customary, especially with registered cows.

In 1935, the Department of the Interior instituted the Historic Sites Act. This act allowed the National Park Service to identify and evaluate properties having national significance. However much of the work initiated in the late 1930s was interrupted by World War II.<sup>139</sup>

Charles Morrow Wilson visited the Warren Ranch in 1937 and wrote an article that appeared in *Scribner's Magazine* describing the modern ranching adhered to by Con Warren. The ranch was described as a:

multitude of spick and span corrals down to the horsesheds. ... The old ranch, once a vast area of wild grass, is now dotted with fattening pens, haystacks, sheds, granaries, and small barns. It means that a shiny, new three-ton truck and a fleet of horse-drawn hay wagons rumble over the landscape, hauling hay and grain to feeding pens adjacent to cultivated fields, carrying feed and supplies to farther winter ranges. It means a shedful of the latest styles in farm machinery, numerous gasoline and electric motors, a crew of cowboys who have learned to double as farm hands, veterinarians, milk-maids, and nursemaid to mothering cows. ... Except for the cottage, the ranch is broadly typical of the cattle country West. Here are 6,200 acres of which 500 are put to crops. Thus about 90 per cent of the entire ranch is range, and at least half of this is valid range in normal seasons. The buildings, fields, and fenced pasture occupy a level mesa about two miles square. Beyond the mesa are rough hillocks of open range, brown much of the year, green only in springtime or immediately after summer rains. ... Con Warren's ranch now has its own irrigation system, watering five hundred acres, fed by two mountain creeks from snow water.<sup>140</sup>

Circa 1937-1938, the Deer Lodge area began to recover from the prolonged drought of 1930s. Looking back on the period, Con Warren remembered that "the first promising native grass ... [to be seen] in six or seven years" was in 1938 (See Figures 2-61, 2-62, 2-63 and 2-64). The plight of ranchers during the second quarter of the twentieth century was summarized by Wilson. "It is no longer advisable to plow land not eligible for reliable irrigation. Plowing dry land merely gives the master-thief wind the chance to lift away the soil and to make still more vexatious the prevailing plague of dust storms. ... Warren must supplement range with reservoirs of feeds grown and harvested from fields or with watered pasture."<sup>141</sup>

About the time that western Montana began to recover from the drought, Con Warren acquired the 160-acre Dalton property (20 of which were irrigated), and the Kohrs Company acquired the Kading place, both southwest of the ranch house on the west side of the Clark Fork River. The Dalton and Kading properties were acquired for depression era prices after banks had foreclosed on them. Warren acquired this property in an effort to increase fields and pasturage, but most importantly to gain access to the valuable West Side ditch. According to Warren, one of the major problems with this property was that it was bisected by an 80-foot wide county road that ran through its middle in a north-south direction. To solve this problem, Con tore fences down and illegally moved the road to its present location above or west of the main ditch supplying water to the area. In addition he built new culverts for the drainages that passed beneath the new road. Kading and previous owners had dug irrigation ditches of their own prior to its acquisition by Warren. However Warren was not satisfied with the existing ditches. The irrigation ditches on the west side were not well-planned, but "just went wherever water would run." As a result, only

<sup>139</sup> McChristian, *Ranchers to Rangers*, 5.

<sup>140</sup> Wilson, "6,000 Acres," 44-46.

<sup>141</sup> Wilson, "6,000 Acres," 44.

marginal irrigation could be achieved. To compound the physical problems, “the ditch on the upper end where it came out of the river ran through a morass of swamps.” Con made the decision to totally re-engineer the ditches. He began the long-term process of leveling and contouring the land, “filling in the low places and shaving the humps off.” One important aspect of re-engineering the West Side fields was the implementation of lateral or contour ditches, ditches that ran with the contours of the land using gravity to more effectively distribute water to targeted fields. Con used a grader or land planer to excavate new and renovate old ditches. “We used it [grader] to make ditches with, you know, tip that blade up and make a pretty good ditch with it” “Then when I finally – I redid that whole west side and the Kading place. I plowed it all up and – not all in one year, but over a period of 20 years, I revamped the whole thing and filled all the old ditches and leveled and finally got it all into contour ditches and seeded down.” Land contouring was followed by plowing, a process that evenly distributed soils in the West Side fields.<sup>142</sup>

Irrigation ditches, particularly those that relied on intermittent drainages, also required regular maintenance to clean them of weeds and undergrowth. Warren carried out general maintenance of his larger ditches by burning them. He installed a tank of gas and pump on a wagon. As the wagon was drawn along the ditch, an igniter burned the gas that was pumped out. “For a while they just let the fire go where it wanted to, but once or twice they ended up having to fight a pretty good fire in the fields. That’s why they started taking along the water wagon to spray any place where the fire looked like it might get out of control.”<sup>143</sup>

In the process of leveling the Kading and Dalton properties, two historic properties were impacted. On the Kading property, Warren tore down an old brick kiln site and partially filled a former clay quarry. In addition during WWII, Con razed and plowed the former homestead of a German butcher and a concrete tank that was used for scalding hogs on the Dalton property.<sup>144</sup>

In 1937, Warren acquired his first tractor, an F-20 Farmall that came with an attachment plow, and an 18-inch single bottom 2-way plow. However the acquisition of a tractor did not mean the abandonment of his Belgian horse teams. “...It wasn’t important to mechanize quickly. There wasn’t anything wrong with horse farming. Part of the problem with continuing with horses was the lack of teamsters. The old ones were dying off and youngsters didn’t want to learn.” Warren also had a ‘four horse Kentucky Drill that could plant peas, beans, wheat, barley and other fine grass seeds.<sup>145</sup>

Warren planted his new West Side fields in grain and the results of his extensive efforts to increase his cultivated land were immediately apparent in 1937. “Warren plants about two hundred acres of the irrigated land in feed grains – barley, oats, and wheat. He puts about twenty acres in mangels or mangel-wurzel, a root crop similar to sugar beets which makes an excellent sweet feed for cattle. The rest of the irrigated acreage is given over to timothy, clover and native hay for feeding horses, steers, and bulls; and alfalfa for feeding cows and calves.” The Dalton property was put into intermediate wheat grass, a crop that did better than most in dry land conditions. “You’d get 90 bushels of oats. Oats was always a good yielding crop. And I always fed oats to my calves and stuff, you know. ...We raised most of [the grain we used] for a long

<sup>142</sup> Paul Gordon Interview with Con Warren, July 29, 1976; Rex Myers Interview with Con Warren, August 1980.

<sup>143</sup> Interview with Con Warren, ca. 1988; Bill Stalker Interview with Con Warren, February 17, 1993.

<sup>144</sup> Interview with Con Warren, March 19, 1985; Paul Gordon Interview with Con Warren, July 29, 1976; Lyndel Meikle Interview with Con Warren, September 2, 1990; Interview with Con Warren, May 9, 1985; Wilson, “6,000 Acres,” 45; Rex Myers Interview with Con Warren, 1980, Tape 5, Side B.

<sup>145</sup> Clemmensen / Bry Interview with Con Warren, November 17, 1981.

time.” When Con Warren inherited the Stuart property, he never plowed it. Warren noted that 1909 was the last year that it regularly yielded “100 bushels per acre in one crop.”<sup>146</sup>

Warren harvested his grain crops with the assistance of Ben Goldie and his steam threshing machine. Harvest time on the Warren Hereford Ranch incorporated both manual and mechanical labor. “And so in the fall when the grain was ready to cut, why, we’d cut it with the binder and we’d shock it up, and then we’d get out there with three or four wagons, and we’d haul the grain in and stack it in those little round stacks, you know? ...Really all we had to do during thrashing was to have a couple of wagons there to haul the grain home. And we never had any good grain boxes or anything, so we used to dump the grain in burlap bags, you know. ...And then they’d haul it in and throw it by hand into the granary. That was hard work. So he came and thrashed our grain right up until, I guess 1947 was the last year he came.” As in other western and mid-western states, the annual grain harvest was a period of intensive labor but it was also a festive time associated with local celebrations.<sup>147</sup>

Aside from chickens, a few dairy cattle and his herd of Hereford and Belgians, Warren did not have a diverse livestock population during the 1930s. In addition to his regular stock, Warren had a single mule on the ranch. The mule was used predominantly as a pack animal usually led by a horse. Many of Warren’s prized Belgian horses and Hereford bulls were buried on his ranch, mostly “in the lots by the small barns” next to his house. The animals known to be buried on the property include Monty, U.S. Tom, T.T. Triumphant, Domino the 20<sup>th</sup>, and Prince Blanchard the 5<sup>th</sup>.<sup>148</sup>

Like many other regional ranchers, Warren continued to supplement the lands he owned with lands leased from state and federal government. In 1939, Warren applied for a lease from the Montana Department of State Lands for a section of land east of the Upper Ranch. A year later, he applied for a 9,000 acre grazing lease in the Deer Lodge National Forest (later called Anderson Creek Allotment) to graze cattle between June and September. Details on his application stated that he had 900 acres under cultivation at his home ranch with a total of 800 cattle and 20 horses.<sup>149</sup>

### Landscape Characteristics by Chronological Period

#### **Spatial Organization**

Warren domestic core

By 1934, a new domestic core had been created around Con and Nell’s new residence (HS-58) and garage (HS-61). A picket fence, garden and select plantings separated the domestic / private sphere from the surrounding working ranch.

Agriculture

Fields under cultivation were placed adjacent to or nearby local drainages due to the richer bottomland soils, and the ability to irrigate

<sup>146</sup> Wilson, “6,000 Acres,” 45-46; Lyndel Meikle Interview with Con Warren, October 1994; Rex Myers Interview with Con Warren, 1980, Tape 5, Side B; Jim Taylor Interview with Con Warren, May 20, 1988; Micki Farmer Interview with Con Warren, January 1978.

<sup>147</sup> Rex Myers Interview with Con Warren, 1980, Tape 5, Side B.

<sup>148</sup> Clemmensen / Bry Interview with Con Warren, November 17, 1981. U.S. Tom, a government mule from Yellowstone National Park, came to Deer Lodge to die sometime during the second quarter of the twentieth century.

<sup>149</sup> National Park Service, “CLI,” Revised Draft, 8.

crops. Dryland farming was not a viable option in western Montana.

## Land Use

### Settlement

The Warren Ranch was one of numerous settlements spread throughout the larger Deer Lodge valley.

### Ranching

Con Warren continued to use the home ranch for general ranching activities that supported care and maintenance of his stock.

### Grazing

Con Warren continued to use portions of the home ranch as open range for his stock.

### Agriculture

Con Warren expanded the existing acreage of irrigated land and acquired new irrigated lands adjacent to the home ranch to increase the total acreage under cultivation. By 1937 Warren had a total of 500 acres under irrigated cultivation. Two years later he had a total of 900 acres under cultivation.

### Grading / Contouring

Upon his acquisition of the Kading and Dalton properties in the late 1930s, Con Warren proceeded to grade the West Side fields, filling in some ditches and excavating others.

### Ditch burning

Warren burned the major irrigation ditches on his property for weed control and general maintenance from the 1930s through the 1950s.

### Burying ground

Many of Warren's prized Belgian horses and Hereford bulls were buried on his ranch, mostly "in the lots by the small barns" during the second quarter of the twentieth century.

## Cultural Traditions

### Irrigation Ditches

Con Warren continued to maintain and improve upon the old irrigation ditch system as he sought to improve the production of fields in the bottomlands and foothills on the west side.

### Jack-leg fencing

Con Warren continued to use and maintain traditional jack-leg fencing on his ranch.

## Cluster Arrangements

### West corral and feed lot cluster

Throughout the mid-1930s, Con Warren developed a large area in the lower yard south and west of the ranch house (HS-1) but east of the Kohrs-Manning Ditch as a stock shelter / corral and feeding area. This area was characterized by long feed bunkers, smaller shelters and feed storage houses, squeeze chutes and fenced pens and lots.

## Circulation

### Gravel road built

The road running westward on the north edge of the Stuart field and paralleling the feed bunkers (HS-45 and HS-46) is constructed with the assistance of Con Warren ca. 1928-1930. This road served to open up the western end of the lower yard to facilities development.

### County road constructed

As part of his realignment of the newly acquired West Side fields ca. 1938-1939, Con Warren constructed a new county road west of the Kohrs Ditch and upslope from the old county road. Culverts for the new county road were also constructed.

### County road removed

As part of his realignment of the newly acquired West Side fields ca. 1938-1939, Con Warren removed the old 80-foot wide county road that divided his West Side fields, grading it into a cultivated field.

### Warren residence pedestrian path

A path from the gate in the north side of the Warren residence (HS-58) was constructed to the front door of the house.

### Warren garage driveway

A short driveway from the historic entrance to the Kohrs-Bielenberg Ranch south to the Warren garage (HS-61) is constructed by Warren in 1934.

## Vegetation

### Warren residence garden

Shortly after the construction of their new residence (HS-58) in 1934, Nellie Warren planted a small flower and vegetable garden somewhere west of the house.

### Warren residence plantings

After the construction of their new residence in 1934, Con and Nell Warren planted several tree



species including “a mountain ash, black birch and native spruce” and cottonwoods and poplars around their house. Two Colorado spruce were also planted.

Ranch House (HS-1) lawn started

Ca. 1934, fill was brought in on the new enclosed area north of and adjacent to the Ranch House (HS-1) to create a grass lawn.

Warren residence drive plantings

Historic photographs document that by the mid-twentieth century at the latest, the historic access road that led westward from the state highway towards the Warren residence (HS-58) was lined with an unidentified tree creating a formal allee.

Crops

Warren cultivated a diverse array of crops including wheat, barley, oats, timothy, clover, native hay, intermediate wheat grass, alfalfa, mangels, and mangel-wurzel, all of which were used in the care and feeding of his stock.

Vegetables

Warren cultivated several acres of potatoes on the home ranch. Excess potatoes were stored in a cold cellar or sold locally.

### **Buildings and Structures**

Storage shed (HS-34) built

A storage shed (HS-34) is constructed ca. 1930. The storage shed was designed to be a portable sheep wagon and tack room that was loaded on the back of a flat bed truck.

Feed rack (HS-36) built

A feed rack (HS-36) is constructed ca. 1930.

Cow barn (non-extant structure E) destroyed

The cow barn (non-extant structure E) is blown down in a storm in 1931.

Dairy blown down

Ca. 1931, the old dairy that was attached to the Draft Horse barn “blew over.”

Dairy (HS-9) built

Con Warren constructs the dairy (HS-9) in the location of the former cow barn (non-extant structure E) in 1932.

Feed storage (HS-31) built

Con Warren constructs the feed storage (HS-31) in 1932.

Manure pit (HS-39) built

Con Warren constructs the manure pit (HS-39) in 1932.

Feed bunk (HS-45) built	Con Warren constructs the feed bunk (HS-45) in 1932.
Feed bunk (HS-46) built	Con Warren constructs the feed bunk (HS-46) in 1932.
Feed bunk (HS-52) built	Con Warren constructs the feed bunk (HS-52) in 1932.
Hog house built	Ca. 1933, Con Warren constructed a hog house "west of the Thoroughbred Barn."
Stock shelter (HS-24) built	Con Warren constructs the stock shelter (HS-24) in 1933.
Stock shelter (HS-27) built	Con Warren constructs the stock shelter (HS-27) in 1933.
Stock shelter (HS-29) built	Con Warren constructs the stock shelter (HS-29) in 1933.
Hay feeder (HS-26) built	Con Warren constructs the hay feeder structure (HS-26) in 1933.
Feed storage house (HS-28) built	Con Warren constructs the feed storage house (HS-28) in 1933.
Squeeze chute (HS-47) built	Con Warren constructs the squeeze chute (HS-47) in 1933.
Feed bunk (HS-48) built	Con Warren constructs the feed bunk (HS-48) in 1933.
Feed bunk (HS-49) built	Con Warren constructs the feed bunk (HS-49) in 1933.
Privy (HS-8) built	Con Warren constructs the privy (HS-8) in 1934.
Stock shelter (HS-25) built	Con Warren constructs the stock shelter (HS-25) in 1934.
Stock shelter (HS-32) built	Con Warren constructs the stock shelter (HS-32) in 1934.
Stock shelter (HS-33) built	Con Warren constructs the stock shelter (HS-33) in 1934.
Squeeze chute (HS-53) built	Con Warren constructs the squeeze chute (HS-53) in 1934.

Warren residence (HS-58) built	Augusta Kohrs finances the construction of a new residence (HS-58) for Con and Nell Warren on a small parcel just east of the ranch house (HS-1) on the east side of the railroad lines in 1934.
Warren garage (HS-61) built	Augusta Kohrs finances the construction of a new single car garage (HS-61) east of and adjacent to the Warren residence for Con and Nell Warren in 1934.
Warren breezeway built	A breezeway connecting the Warren residence (HS-58) to the garage (HS-61) is constructed shortly after the completion of both structures, ca. 1934.
Blacksmith shop / garage (HS-3) built	Con Warren constructs a blacksmith shop / garage (HS-3) in 1935.
Chicken house (non-extant structure G)	Con Warren tears down the old chicken removed house (non-extant structure G) sometime prior to 1935.
Granary / Roller mill (HS-6) built	Con Warren constructs a frame granary / roller mill (HS-6) on the location of the old chicken house (non-extant structure G) in 1935.
Brooder house (HS-21) built	Con Warren constructs a brooder house (HS-21) in 1935.
Chicken house (HS-22) built	Con Warren constructs a chicken house (HS-22) in 1935.
Cattle scale (HS-35) built	Con Warren constructs a cattle scale (HS-35) in 1935.
Squeeze chute (HS-41) built	Con Warren constructs a squeeze chute (HS-41) in 1935.
Unidentified structure built	By 1937 at the latest, Con Warren had constructed an as yet unidentified structure due west of and adjacent to HS-1.
Old brick kiln razed	In the process of grading and contouring the West Side fields and irrigation ditches ca. 1938-1939, Con Warren razed the site of an old brick kiln on the former Kading property.
Clay quarry filled	In the process of grading and contouring the West Side fields and irrigation ditches ca. 1938-

1939, Con Warren leveled and filled in an old clay quarry on the former Kading property.

Concrete tank razed

In the process of grading and contouring the West Side fields and irrigation ditches ca. 1938-1939, Con Warren razed the remains of a concrete tank that was used for scalding hogs on the former Dalton property.

### **Constructed Water Features**

Warren residence well dug

During the construction of his residence in 1934, Warren dug a new well to supply his new home. A partially submerged pump house (HS-88) was later added to the well in 1952.

### **Small-Scale Features**

Slough bridge (HS-90) built

Con Warren assists in the construction of the slough bridge (HS-90) ca. late 1920s.

Clark Fork Bridge (HS-89) built

Con Warren assists in the construction of the Clark Fork River bridge (HS-89) ca. late 1920s.

Kohrs-Manning Ditch bridge (HS-55) built

Con Warren assists in the construction of the bridge over the Kohrs-Manning Ditch (HS-55) ca. late 1920s.

Jensen hay stacker acquired

Con Warren acquired a Jensen hay stacker soon after assuming control of the ranch in the early 1930s.

Stone steps and handrail to garden built

Con Warren constructs northern entrance to the flower and vegetable garden including stone stairs and a wooden handrail for Augusta Kohrs sometime in the 1930s.

Retaining walls built

Ca. 1934, Con Warren constructs two short stone retaining walls west of and adjacent to the Ranch House (HS-1). The walls were located on both the north and south sides of the 1890 rear brick addition.

Warren residence picket fence

During the construction of their new residence in 1934, Con and Nell Warren constructed a white picket fence on the northern and western sides their house (HS-58) and garage (HS-61). Two pedestrian gates, one on the north side and one on the west side, allowed entrance and egress. A larger gap on the northern side of the fence allowed automobile access to the garage.

Ranch House (HS-1) fence rebuilt and realigned

Ca. 1934, Con Warren rebuilt the deteriorating white picket fence surrounding the Ranch House (HS-1). The new fence encompassed a larger area, enclosing the former buggy turnaround on the north side of the residence.

Swing set erected

By the late 1930s, the Warrens had erected a children's swing set adjacent to the southeast corner of their house.

Doghouse built

By the late 1930s, the Warrens had built a small dog house at an unknown location within their domestic compound.

Clothesline erected

By the late 1930s, the Warrens had erected a clothesline with two poles at an unknown location within their domestic compound.

Sweet pea trellis erected

By the late 1930s, Nell Warren had erected a frame sweet pea trellis in her flower and vegetable garden. The trellis was painted white.

### **Archeological Sites<sup>150</sup>**

Dump site (24PW657)

This dump site may be associated with the Kohrs-Bielenberg or Warren eras and could date from the last quarter of the nineteenth century to the first half of the twentieth century.

Dump site (24PW693)

This dump site may be associated with the Kohrs-Bielenberg or Warren eras and could date from the last quarter of the nineteenth century to the first half of the twentieth century.

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<sup>150</sup> More updated information on archeological resources is available in the new DRAFT Archeological Survey for Grant-Kohrs NHS.

## The Warren Hereford Ranch, 1940-1958

### Introduction

After his purchase of the home ranch in 1940, Warren expanded the role of agriculture using a variety of conservation programs to improve pastures and reclaim abandoned or damaged fields. Warren appears to have been unusually adaptive during this period, adopting scientific strategies in the fields of soil improvement and both crop and herd management that were new or rarely practiced within the larger region. The physical facilities at the home ranch were also expanded during this period. Warren's relentless pursuit of increased productivity paid dividends as his purebred registered Hereford herd experienced substantial growth until its dispersal in 1958.

### Historical Context

Perhaps buoyed by the increased carrying capacity of the Kohrs-Bielenberg Ranch and the fact that he had created a profitable purebred breeding operation, in 1940 Con Warren bought the home ranch including all of its lands and livestock from the Kohrs Company. He immediately christened it the Warren Hereford ranch. During the same year, Warren also acquired the old Kohrs-Bielenberg 'Upper Ranch.'<sup>151</sup>

Shortly after his acquisition, Warren instituted dramatic changes that were to impact the course of his operations into the next two decades. In anticipation of post-Depression small farmers' desire and ability to buy mechanized farming equipment, Warren sold his entire herd of Belgian horses to the Holbert Horse Implement Co. in Iowa. The horses were subsequently sold to the Rockefeller estate. "Everybody switched to tractors and I couldn't sell them [Belgian draft horses]. Then it got to be hard to get teamsters to drive them, you know. ... Tom Holbert worked up a sale, and pretty near all of my mares went to the Rockefeller estate at Tarrytown, New York." Although Warren sold most of his mares, he did keep a few work teams (See Figures 2-65 and 2-66). "We had a tractor mower that we used to mow the hay with, but the rest of it we raked up and stacked it with horses clear up to the end of the war."<sup>152</sup>

Ca. 1940-1941, Warren installed a new water pump on a Deer Lodge city lot south of Milwaukee Avenue. The pump station on Mitchell Street allowed him to irrigate his West Side pastures making them more productive. The turbine pump drew water from the Clark Fork River "thereby making it possible to lift an additional 500 miner-inches from the river to a reconditioned ditch at a high enough elevation to serve all the hay land he would need." The "water is spread over the fields by a network of contour ditches that both retard and direct the flow. Introduced at the highest arable point on the steepest slopes, the water is held and reused many times before flowing back into the Clark Fork." Ultimately the dependability of the water enabled him to "put another 500 acres of reclaimed land into hay cultivation, and clipped his [annual] ditch and water cost in half." As Warren recalled, "that was the first irrigation pump in the valley." A short road leading north from Milwaukee Avenue, and likely built in association with the facility, provided access to the pump house.<sup>153</sup>

<sup>151</sup> McChristian, *Ranchers to Rangers*, 4; Albright, *Historic Resource Study*, 114-115.

<sup>152</sup> John Albright Interview with Con Warren, 1975; Albright, *Historic Resource Study*, 115; Rex Myers Interview with Con Warren, 1980, Tape 5, Side A.

<sup>153</sup> Albright, *Historic Resource Study*, 115; Rex Myers Interview with Con Warren, 1980, Tape 5, Side A; National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, 7-12; Jillson, "Cottonwood Creek," 8.

Beginning in 1940 and continuing through to 1958, Con Warren became active in range and pasture improvements supported by the federal Agricultural Conservation Program (See Figures 2-67, 2-68 and 2-69). The Agricultural Conservation Program was designed “to assist farmers to maintain and improve the nation’s soil and water resources” by “sharing the costs of conservation practices that prevent soil destruction and restore fertility to depleted soil.” By 1940 he had begun to implement soil conservation and reclamation practices in an effort to reclaim the formerly rich bottomland meadows adjacent to the Clark Fork River that had been poisoned from the Anaconda mine.<sup>154</sup>

Where we used the [Clark Fork] river water, why, there was nothing [in terms of crop productivity] to holler about. ... I plowed up all that land, and then I got a big plow, it was an 1811 plow. And I plowed a lot of that land 12” and 14” deep. Took a ripper and went through it first, and then plowed it and turned that surface down. ... Our soil here is only about 8”, you know, topsoil, and then you get into this kind of yellow clay-like stuff underneath. And I plowed a lot of that out on top. And then we started a big program. Everything that we could find around here that was loose in the way of hay bottoms and strawpile bottoms and manure piles, we’d haul out on those fields, just everything that we could find in the way of humus, you know. And we brought them [bottom lands] back. They came back good. After about 10 years, why, I was finally, you know, getting crops that were equal to or better than a lot of the others around, you know, 80, 90 bushels of barley and 100 bushels of oats and stuff like that. But it took a lot of doing, I’ll tell you, to reclaim that land.<sup>155</sup>

His reclamation efforts were summarized in 1948.

His system was to annually plow an 80-acre tract and leave it in summer fallow. In the fall this acreage was fertilized with all the available manure, with 15 pounds of phosphate added to every load spread, which was turned under. That spring the 80 acres was sown in wheat and oats for steer feed. The wheat yield from such treated land ran 60 to 77 bushels per acre. The following year the land would be sown to alfalfa and timothy with a large percentage of oats added as a nurse crop, and for harvest. The oat yield ran 6 to 100 bushels per acre. For the next four years the meadows produced hay and then the rotation is repeated.<sup>156</sup>

Warren’s scientific application of farming was also adopted in his herd management. Between the early 1940s and the 1960s, Warren conducted several feeding experiments with his cattle. A 1943-1944 experiment documented the impact of supplying grain feed to steers and calves and compared their weight gain versus the cost of feed and herd management. A similar experiment carried out in 1960 monitored the cost and efficiency of allowing his cattle to self-feed.<sup>157</sup>

<sup>154</sup> Agricultural Conservation Program, *Montana Handbook*, 1950. Personal Papers, Conrad Warren. Series #2, Daily Ranching Activities, Subseries B (Ms. at the Grant-Kohrs Ranch National Historic Site, Deer Lodge, Montana).

<sup>155</sup> National Park Service, “Grant-Kohrs Ranch / Warren Ranch,” National Register of Historic Places Registration Form, 7-7; Rex Myers Interview with Con Warren, 1980, Tape 7, Side B.

<sup>156</sup> Herb Jillson, “My Ranch situated on Cottonwood Creek,” *Western Livestock Reporter*, No. 7 (October 6, 1948), 8. A nurse crop was a crop that grew quickly to provide shade and retain moisture for alfalfa.

<sup>157</sup> Con Warren, “Results of Feeding Experiment at CK Cattle Ranch from Nov. 1, 1943 to Aug. 1, 1944,” Personal Papers, Conrad Warren, Series 2, Subseries E: Feeding Experiment (Ms. at the Grant-Kohrs Ranch National Historic Site, Deer Lodge, Montana); Con Warren, “Feeding trial 1960 – Warren Ranch – Self Feeder, 20 head of calves mixed,” Personal Papers, Conrad Warren, Series 2, Subseries E: Feeding Experiment (Ms. at the Grant-Kohrs Ranch National Historic Site, Deer Lodge, Montana).

As bulk grain slowly became less expensive after World War II and as its cost effectiveness in fattening cattle became apparent, Warren made the gradual transition from farming that predominantly featured grain, to one of nearly exclusively hay. While the cultivation of grains was never totally abandoned until the late 1950s, hay was grown on an increasingly greater scale. "We never did much [grain] farming [on the west side] after that [ca. 1957-1958]. ...Because it always seemed like the hay was more important than the grain. You could always buy grain and, of course, grain was pretty easy to handle. Whereas hay, if you're short on hay, you'd either have to move the cattle to the hay or you'd have to move the hay to the cattle, hay being bulky. And of course, most of the hay in those days was loose hay. You couldn't transport it, you know. You pretty near had to move the cattle to the hay." Warren's biggest haying crop on the west side was approximately 1,380 tons, accomplished with only three men and a dog. By 1948, the importance and scale of Warren's hay cultivation had become apparent. "The ranch also has 100 acres of hay stand on the east side of the river, but it is the west side meadows that Warren counts on, and which make ideal fall and winter pasture for the cow herd. Annually there is produced 800 tons of hay, all of which will be stacked with the beaverslide popularized in the Big Hole country."<sup>158</sup>

Only minimal new construction occurred at the home ranch in the years immediately preceding and during the war. After the birth of their second child, the Warrens decided to add to their residence. In 1941, the screen porch on the east side of the Warren residence (HS-58) was subsequently enclosed creating another room, an office and a smoking room were created, and the roof was raised four feet to add a second story. In the process of raising the roof, two new dormers were added one on both the east and west sides. The renovations to the structure were done by local contractor Ben Goldie. In 1940, a chicken coop (HS-59) was also erected for Nellie Warren just west of but adjacent to the Warren residence compound. Within the larger ranch, two feed racks (HS-43 and HS-44) were erected 1942 (See Figures 2-70, 2-71, 2-72 and 2-73).<sup>159</sup>

During the war, profits from the ranching operation remained steady but static due largely to the U. S. Government's move to freeze market prices of beef. The price of cattle was set at \$17.50 per hundred weight. As a result of static beef prices during the war, Warren could not pay off more than the interest on his bank debts. In response, in 1945 he sold the historic Kohrs-Bielenberg 'Upper Ranch.' During the same year, in anticipation of a drop in cattle prices, he sold the last of his 'commercial' Hereford herd composed predominantly of steers, and focused instead on the production of registered purebred Hereford bulls.<sup>160</sup>

The year 1945 also witnessed the end of the pioneer generation of Montana cattle ranchers. In that year, Augusta Kohrs died at the age of 96.<sup>161</sup>

Shortly after the war, Warren and a partner purchased Ben Goldie's steam threshing machine. Although grain did not constitute a substantial amount of the yearly crops at the Warren Hereford Ranch, Con and his partner continued to thresh grain on their properties with the Goldie threshing machine up until the early 1950s when he purchased a used International Harvester steam grain thresher.<sup>162</sup>

<sup>158</sup> Rex Myers Interview with Con Warren 1980, Tape 5, Side B; Jillson, "Cottonwood Creek," 8.

<sup>159</sup> Cultural Resources & National Register Program Services, "Conrad and Nellie Warren Residence," 4-5; National Park Service, Historic Structure Survey Forms; John Albright Interview with Con Warren, 1975; Jimmy D. Taylor Interview with Con Warren, November 3, 1982.

<sup>160</sup> John Albright Interview with Con Warren, 1975; Albright, *Historic Resource Study*, 115-116; National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, (Listed 2003), 8-60; Jillson, "Cottonwood Creek, 17.

<sup>161</sup> Albright, *Historic Resource Study*, 233.

<sup>162</sup> Rex Myers Interview with Con Warren, 1980, Tape 5, Side B; Micki Farmer Interview with Con Warren, January 1978.



During the late 1940s, minimal new construction and general maintenance continued at the Warren Hereford Ranch. In 1946, Con Warren “fixed up” and remodeled the thoroughbred barn (HS-15) to house cattle. He jacked up the superstructure, poured a new concrete floor, added new flooring with scale, and subsequently built a cupola on top for a granary. In 1947, the Kohrs-Manning Ditch Company constructed a frame flume (HS-51) that carried their water over Johnson Creek.<sup>163</sup>

With the Warren Hereford Ranch’s post-war emphasis on the production of a purebred registered herd, Warren began to actively sell his bulls at regional consignment sales. Warren also began to advertise stock for sale at his own ranch. About 1946, in preparation for a stock sale and the erection of a sales tent in the lower yard, Warren had gravel trucked in, spread around and compacted. Simultaneously he began to acquire new genetic stock. “The Warren Ranch itself became the center of numerous sales as hundreds of buyers and spectators gathered in the tent erected on the south edge of the thoroughbred barn to watch.” In 1947, Con acquired the purebred Hereford bull, TT Triumphant. Shortly thereafter he also acquired the bull Proud Star. By the early-1950s the two new bulls had introduced genetic dwarfism (achondroplasi) into his herd through selective breeding. Warren was forced to admit much later, “[they] had that dwarf gene.”<sup>164</sup>

New construction throughout the early 1950s reflected the emphasis on the production and sale of purebred registered Hereford bulls. More importantly however construction of new Warren Hereford Ranch facilities instituted a shift of operations from the west side of the railroad lines to high ground on the east. “We’d kind of abandoned the old place. The mud was so deep over there in the spring that you would have to take some buyer out to show him the bulls and would have to give him a pair of hip boots to wade out in the mud.” Between 1952 and 1954, two new bull barns (HS-62 and HS-63) (See Figure 2-74), a scale house (HS-66), a feed rack (HS-68), a loading chute (HS-69), eight cow sheds (HS-70 through HS-77), seven feed houses (HS-78 through HS-84), and a residence pump house (HS-88) were erected. In addition, a state of the art cattle barn (HS-64) and associated feedlots, gates, and alleys were also constructed (See Figure 2-75). Over 2,300 feet of water line were laid in association with the new feedlots. Most of the cow sheds and feedlots were also built incrementally over a two to three year period. In 1954, Con Warren constructed a large metal sales barn (HS-65) on high ground just east of the railroad tracks to replace a tent and barn on the west side of the tracks that had formerly served as a sales ring. Phil Berg built both HS-64 and HS-65. Connecting his new feed lot and bull barns were two access roads, one extending southward toward his residence, and a second extending westward pass the north side of his bull barns to the bunkhouse complex. During the early 1950s, Warren continued to improve his residential compound. In 1950, he constructed a “boat house” (HS-60) southwest of and adjacent to his residence (HS-58) that allowed him to build a sailboat. By 1952 he had a pump house (HS-88) built over his well immediately west of his residence (HS-58). The pump house was of concrete and frame construction with only the roof visible above ground. In 1952, a small barbecue pit or structure was built in the Warren residential landscape. Also during this period, he erected a white picket fence just north of and adjacent to a small drainage south of his residence (See Figures 2-76 and 2-77). In addition, ca. 1955 he added an enclosed front porch entry on the north side of his residence.<sup>165</sup>

<sup>163</sup> John Albright Interview with Con Warren, 1975; Charles Snell Interview with Con Warren, June 9, 1975. As Warren noted, Horses needed dirt floors because they sleep in hay and their hooves are hurt by wood.

<sup>164</sup> Interview with Con Warren, July 17, 1985; Albright, *Historic Resource Study*, 116; Interview with Con Warren, April 13, 1989.

<sup>165</sup> Albright, *Historic Resource Survey*, 116; National Park Service, Historic Structure Survey Forms; John Albright Interview with Con Warren, 1975; National Park Service, “Grant-Kohrs Ranch / Warren Ranch,” National Register of Historic Places Registration Form, 8-61; Cultural Resources and National Register Program Services, “Conrad and Nellie Warren Residence, Historic Structure Report, Grant-Kohrs Ranch NHS,” 5.

In an effort to combat encroaching cheat grass surrounding the Ranch House (HS-1), in 1950 Warren placed approximately six inches of earth fill on the front or eastern lawn of the residence seeding it to turf grass. The addition of the fill covered the late nineteenth century wooden irrigation system for the lawn and trees. The Warrens attempted to control other pests including gophers, skunks, porcupines, rabbits, magpies, pigeons and stray cats and dogs that periodically plagued the Home Ranch. Warren tried poisoning gophers for a period but it was determined to be largely unsuccessful because other animals would also become poisoned. During the 1950s, Warren purchased a .22 rifle for his son who was given the responsibility of maintaining a low predator population.<sup>166</sup>

Throughout the 1950s, Warren continued to graze his Hereford herd on the West Side fields. This meant that his cattle moved from their sheds on the east side of the tracks to the west side for pasture. During the summer, Warren also grazed his cattle on what he called his summer range, land he owned on the east side (See Figure 2-68), and land he also leased from the U. S. Forest Service. "Summer range started at 4,600 feet and ended at 6,400 feet. They [cattle] would start low in the spring and keep moving up. It would be time to come home when they got to the top." The east side lands and Forest Service leases allowed Warren to increase the carrying capacity of his ranch. By the mid-1950s, Warren also began to improve the irrigation of his land east of the railroad tracks. By 1954, Warren had constructed an irrigation system that diverted water from the Kohrs-Manning Ditch under the railroad and through an underground pipe to a pump house (HS-86), and from there to a mainline, standpipe risers and lateral hand lines with sprinkler attachments. The result was an efficient system that provided convenient pasturage, produced good crops, and ultimately substantially benefited Warren's Hereford management system.<sup>167</sup>

The Future Farmers of America (FFA) sprayed the Warren ranch for weeds in July of 1955. It is not known if this service was required as part of a County wide ordinance, or if it was a service provided by the FFA.<sup>168</sup>

Warren's ranch was described in a 1956 appraisal of his property prior to selling a portion of his property to the City of Deer Lodge. The appraisal noted that the Warren Ranch had "extensive investment in improvements for purebred livestock corrals, feedlots, each with its own heated water supply, all located on alleyway." The comments reflected the quality of the new east feedlot area, noting that it was "perhaps the best fenced property that your appraiser has inspected in many years" containing five-wired cedar post fencing. Due to an increasing bank debt, Warren made the decision to disperse his registered Hereford herd at auction in 1958. After the dispersal auction, Warren subsequently entered the business of feeding and selling (finishing via feedlot) commercial Herefords (feeder cattle) to stockyards, ultimately managing a herd of about 350 Herefords. During the same year, the Conrad Kohrs Trust Company dissolved and the benefits went directly to numerous heirs. After Anna and Katherine died in 1958, the trust dissolved and the Warren and Bache Agency was formed to handle the assets.<sup>169</sup>

<sup>166</sup> Shapins Associates, "HS-1 Cultural Landscape," 70% Draft, 15-16; Chris Ford Interview with Con Warren II, February 5, 2004.

<sup>167</sup> Chris Ford Interview with George Wadsworth and Earl Martin, June 27, 1995; Meikle / Bry Interview with Con Warren, July 20, 1987. Warren's 'summer range' was on the east side of Deer Lodge.

<sup>168</sup> Peggy Gow, "Notes on C. K. Warren Papers," n.d.

<sup>169</sup> John Albright Interview with Con Warren, 1975; Albright, *Historic Resource Study*, 117; Rex Myers Interview with Con Warren, 1980, Tape 6, Side B; Henry T. Murray, "Appraisal of Grant-Kohrs Ranch / Warren Ranch, C. K. Warren owner," 1956. Personal papers, Conrad Warren (Ms. at the Grant-Kohrs Ranch National Historic Site, Deer Lodge, Montana).

## Landscape Characteristic by Chronological Period

### **Natural Systems and Features**

#### Shift of ranching operations

Because of the constant flooding and muddy nature of the lower yard in the Kohrs / Warren ranching complex, Warren constructed a new ranching complex east of the railroad lines and north of his residence on drier ground in the early 1950s (HS-58).

### **Spatial Organization**

#### Agriculture

Fields under cultivation were placed adjacent to or nearby local drainages due to the richer bottomland soils, and the ability to irrigate crops. Dryland farming was not a viable option in western Montana.

### **Land Use**

#### Settlement

The Warren Ranch was one of numerous settlements spread throughout the larger Deer Lodge valley.

#### Ranching

Con Warren continued to use the home ranch for general ranching activities that supported care and maintenance of his stock.

#### Grazing

Con Warren continued to use portions of the home ranch as open range for his stock.

#### Agriculture

Con Warren continued to increase the total acreage under cultivation. By 1948 Warren produced 800 tons of hay.

#### Land reclamation

During the 1940s, Warren participated in the government's Agricultural Conservation Program. Throughout the 1940s he initiated the reclamation of the bottomland meadows adjacent to the Clark Fork River. Reclamation practices included plowing, fertilization, and crop rotation.

#### Ditch burning

Warren burned the major irrigation ditches on his property for weed control and general maintenance from the 1930s through the 1950s.

## **Cultural Traditions**

### **Irrigation Ditches**

Con Warren continued to maintain and improve upon the old irrigation ditch system as he sought to improve the production of fields in the bottomlands and foothills on the west side.

### **Jack-leg fencing**

Con Warren continued to use and maintain traditional jack-leg fencing on his ranch.

## **Cluster Arrangements**

### **East ranching cluster**

In the early 1950s, Warren constructed a new portion of the ranching complex east of the railroad lines and north of his residence (HS-58). This shift of operations meant a near abandonment of many of the facilities in the west ranching cluster, or lower yard of the home ranch.

## **Circulation**

### **Pump house (HS-87) access road**

A short road built in association with a new pump house just off Milwaukee Avenue in Deer Lodge City provided access to the facility ca. 1940-1941.

### **Gravel sales yard**

In preparation of the erection of a sales tent in the lower yard in 1946, Warren had gravel trucked in and compacted to improve pedestrian and vehicular circulation of the area.

### **Feed lot road**

By the mid-1950s, a short road was created from the Warren residence north toward the new feed lot area with a westward extension passing the north side of the bull barns crossing the railroad tracks and intersecting with the north side of the bunkhouse.

### **Pedestrian and bovine corridors**

With the construction of the new east feed lot in the early to mid-1950s, narrow pedestrian and bovine alleys and corridors were created between and adjacent to the fenced lots.

## **Vegetation**

### **Lawn reseeded**

Ca. 1950, in an effort to combat cheat grass, Con Warren placed approximately six inches of fill on the eastern lawn surrounding the Ranch House (HS-1). The fill was graded and re-seeded in turf grass.

Crops	Warren continued to expand cultivation of crops through to the late 1950s. In addition to native hay, Warren grew wheat, oats, timothy and alfalfa.
Vegetables	Warren cultivated several acres of potatoes on the home ranch. Excess potatoes were stored in a cold cellar or sold locally.
Warren Ranch sprayed	In 1955, the Warren Ranch is sprayed for noxious weeds by the Future Farmers of America.

### **Buildings and Structures**

Chicken coop (HS-59) built	Con Warren constructed a chicken coop (HS-59) west of his residence (HS-58) for Nellie in 1940.
Warren residence (HS-58) addition	Con Warren encloses the screen porch on the east side of his residence (HS-58) and raises the roof of his house four feet to create a second story in 1941.
Feed rack (HS-43) built	Warren constructs a feed rack (HS-43) in 1942.
Feed rack (HS-44) built	Warren constructs a feed rack (HS-43) in 1942.
Thoroughbred barn (HS-15) renovated	Warren completely renovates the thoroughbred barn (HS-15) including pouring a new concrete floor, adding new frame flooring and building a cupola in 1946. The renovations were done to transform the structure into a cattle barn and to support the feed lot area he built to the southwest.
Boat house (HS-60) built	Warren constructed the boat house (HS-60) southwest of and adjacent to his residence (HS-58), ca. 1950.
Bull barn (HS-62) built	Warren constructed a bull barn (HS-62) in 1952.
Bull barn (HS-63) built	Warren constructed a bull barn (HS-63) in 1952.
Scale house (HS-66) built	Warren constructed a scale house (HS-66) in 1952.
Feed rack (HS-68) built	Warren constructed a feed rack (HS-68) in 1952.
Loading chute (HS-69) built	Warren constructed a loading chute (HS-69) in 1952.

Cattle barn (HS-64) built	Warren constructed a large cattle barn (HS-64) in 1952.
Warren residence pump house (HS-88) built	Warren constructed a concrete and frame pump house (HS-88) west of and adjacent to his residence (HS-58) in 1952.
Cow shed (HS-70) built	Warren constructed a cow shed (HS-70) ca. early 1950s.
Cow shed (HS-71) built	Warren constructed a cow shed (HS-71) ca. early 1950s.
Cow shed (HS-72) built	Warren constructed a cow shed (HS-72) ca. early 1950s.
Cow shed (HS-73) built	Warren constructed a cow shed (HS-73) ca. early 1950s.
Cow shed (HS-74) built	Warren constructed a cow shed (HS-74) ca. early 1950s.
Cow shed (HS-75) built	Warren constructed a cow shed (HS-75) ca. early 1950s.
Cow shed (HS-76) built	Warren constructed a cow shed (HS-76) ca. early 1950s.
Cow shed (HS-77) built	Warren constructed a cow shed (HS-77) ca. early 1950s.
Feed house (HS-78) built	Warren constructed a feed house (HS-78) ca. early 1950s.
Feed house (HS-79) built	Warren constructed a feed house (HS-79) ca. early 1950s.
Feed house (HS-80) built	Warren constructed a feed house (HS-80) ca. early 1950s.
Feed house (HS-81) built	Warren constructed a feed house (HS-81) ca. early 1950s.
Feed house (HS-82) built	Warren constructed a feed house (HS-82) ca. early 1950s.
Feed house (HS-83) built	Warren constructed a feed house (HS-83) ca. early 1950s.

Feed house (HS-84) built	Warren constructed a feed house (HS-84) ca. early 1950s.
Warren residence entranceway enclosed	Warren encloses the front or eastern entrance to his residence (HS-58) sometime between 1952-1956.
Sales barn (HS-65) built	Warren constructed a metal sales barn (HS-65) in 1954.

### **Constructed Water Features**

Flume (HS-51) built	The Kohrs-Manning Ditch Company constructed a frame flume to carry their water over Johnson Creek in 1947.
Water line laid	Over 2,300 feet of water line were laid in the early 1950s in association with the construction of the east ranching cluster.
Handline irrigation system installed	Buried pipe, standpipe risers, and handline sprinklers were installed by 1954 in association with the irrigation of fields east of the railroad.

### **Small Scale Features**

East feed lot fencing	Adjacent to each cow shed and feed house, Warren fenced in a square feed lot to insure that his cattle would not cross breed.
Barbeque pit constructed	In 1952, a barbecue pit or structure was built within the Warren residence yard, adjacent to the eastern side of the picket fence.

### **Archeological Sites<sup>170</sup>**

Dump site (24PW657)	A dump site may be associated with the Kohrs-Bielenberg or Warren eras and could date from the last quarter of the nineteenth century to the first half of the twentieth century.
Dump site (24PW693)	A dump site may be associated with the Kohrs-Bielenberg or Warren eras and could date from the last quarter of the nineteenth century to the first half of the twentieth century.

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<sup>170</sup> More updated information on archeological resources is available in the new DRAFT Archeological Survey for Grant-Kohrs NHS.

## Post-dispersal and efforts to establish a National Park, 1958-1972

### Introduction

During the second half of the twentieth century as large corporate feed lots began to dominate the cattle business, Con Warren continued to adapt moving from a commercial feeder business, to raising yearling steers, to raising cows and calves. After an initial inquiry, Warren and the National Park Foundation eventually came to an agreement to purchase the older part of the Grant-Kohrs Ranch in 1970.

### Historical Context

In 1957, the Department of the Interior reactivated its 1930s program intended to identify and evaluate nationally significant properties for National Historic Landmark designation. Two years later, an Utley, Everhart and Mattison report generated by a survey of Historic Sites and Buildings identified a total of 27 sites across the United States that were identified as significant to the growth and development of the cattle industry (See Figure 2-79). Only five were recommended as having exceptional significance based on the criteria for the survey. The Warren Hereford / Grant-Kohrs Ranch was one of these five sites recommended largely based on the importance of Conrad Kohrs and the overall integrity of the site. In 1960, the Warren Hereford / Grant-Kohrs Ranch, along with J. A. Ranch in Texas, the town of Lincoln, New Mexico, and the Tom Sun Ranch in Wyoming, were recommended for designation as National Historic Landmarks. The Warren Hereford / Grant-Kohrs Ranch was subsequently designated a National Historic Landmark in 1970. The increased recognition of the site and its historical context was to drive future preservation efforts.<sup>171</sup>

As needs of the town of Deer Lodge grew, municipal development and construction were implemented. Circa 1958-1960, the town constructed a sewage treatment pond and short access road from the state highway in the northeast corner of the Warren Hereford Ranch. The pond was subsequently rebuilt into four separate holding pools. In addition, they operated a gravel quarry in the southwestern corner of the Warren Hereford Ranch [former Kading property], and they widened Main Street (Montana State Highway 10) through town.<sup>172</sup>

Within the Warren Ranch itself, two pump houses (HS-86 and HS-87) were erected in the early 1960s. The concrete pump house (HS-87) adjacent to the southwest corner of the Stuart field was installed to lift water from the Clark Fork River over two hundred feet westward to the Kohrs Ditch (Kohrs-Batterson Ditch or the 'Big Ditch'). Subsequent to its construction, the pump station in the town of Deer Lodge was abandoned. The north pump house (HS-86) was placed on the north edge of the north field adjacent to the Kohrs-Manning Ditch.<sup>173</sup>

In 1963, Warren sold his small herd of commercial feeder cattle and entered the yearling steer business. He continued raising yearling steers until 1966 when he shifted to raising cows and calves. This was due in part to the dominance of corporate owned large-scale feed yards and the fact that small ranching operations like the Warren Hereford Ranch could not meet their

<sup>171</sup> McChristian, *Ranchers to Rangers*, 1.6. Note: An additional four sites were identified as having exceptional significance to the growth and development in the cattle industry in a subsequent survey conducted in the American Southwest.

<sup>172</sup> National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, (Listed 2003), 7-6.

<sup>173</sup> National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, (Listed 2003), 7-12, 8-64; National Park Service, Historic Structure Survey Forms.



economies of scale. "I'd buy calves and winter and summer them. I'd get 450 pound calves and in 180 days feed them to approximately 780-800 lbs – just on hay and grass."<sup>174</sup>

By the mid-1960s Con and Nell Warren had asked Department of the Interior officials if they would be interested in adding the Grant-Kohrs Ranch to their national park system. In response, Department of the Interior officials visited the National Landmark ranch on several occasions to study the potential for its inclusion in the National Park Service. In 1966, historian Aubrey C. Haines visited the Warren Hereford / Grant-Kohrs Ranch and drafted a feasibility report positively recommending that the National Historic Landmark site be included in the National Park Service. The following year, historians Merrill J. Mattes and John Calef inspected the Warren Hereford / Grant-Kohrs Ranch. In his 1968 report, Mattes recommended acquiring more than the historic architectural core and expanding the potential boundaries of the park to include the active ranch. Perhaps most importantly, he recognized that the acquisition of an active ranch would obligate the National Park Service to continue to operate a working ranch.<sup>175</sup>

While the National Park Service was interested in purchasing the historic portions of the Grant-Kohrs Ranch they did not have the funds necessary to carry out their intentions. In 1970, Con Warren and the National Park Service signed an agreement for the purchase of the older portion of the Grant-Kohrs Ranch "to be managed as a living ranch" (See Figures 2-80, 2-81 and 2-82). One hundred and thirty acres of the active Warren Hereford Ranch was purchased in fee simple, and an additional 1,180 acres of easement was eventually purchased by the National Park Foundation, a privately funded organization established by Congress specifically for purchasing properties that the National Park Service identified as critical but did not have the funds to buy themselves, with the long-term intent of establishing the Grant-Kohrs Ranch National Historic Site. The National Park Service, acting on behalf of the National Park Foundation, assumed immediate administrative responsibility over the property.<sup>176</sup>

Shortly after the National Park Foundation's acquisition, in December of 1970, a 40-foot trailer was installed between the garage (HS-3) and the lower yard garden for use of the National Park Foundation site caretaker. A water line from the ranch house (HS-1), a sewerage line to the adjacent city line, and telephone lines were subsequently hooked up to the trailer. During the same year, the Anaconda Company mines and smelter closed ending nearly a century of operation.<sup>177</sup>

In 1971, the first Master Plan for the National Park Foundation site was developed. The formal boundary of the site was set and issues of entrance and egress were discussed. During the same year, the first stabilization and rehabilitation work was begun at the ranch. Tom Pettet, the first National Park Foundation caretaker, began rehabilitation work on the ranch house (HS-1). Work included repairing and replacing shutters. Pettet was eventually replaced by Ed and Jean Griggs in September of 1971. A second, smaller trailer was acquired and located adjacent to the first trailer to be used as the caretaker office. An extension from the residential to the office trailer was subsequently built. During the same year, a Special Use Permit was issued to the Montana Power

<sup>174</sup> John Albright, Interview with Con Warren, 1975; Albright, *Historic Resource Study*, 117; <sup>174</sup> National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, 8-63; Interview with Con Warren, July 17, 1985.

<sup>175</sup> McChristian, *Ranchers to Rangers*, np.

<sup>176</sup> McChristian, *Ranchers to Rangers*, np; National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, 8-6.

<sup>177</sup> McChristian, *Ranchers to Rangers*, np; *Cottonwood Chronicle* (Deer Lodge, Montana, June 2002), Vol. 2, No. 1.

Company to erect a single pole 100 KV power line crossing Grant-Kohrs Ranch, National Historic Site.<sup>178</sup>

In 1972, Warren remodeled the south side of his cattle barn (HS-64) for use as a wood and maintenance shop. New red metal siding and three overhead doors were installed. Sometime after 1972, the metal sales barn (HS-65) was also renovated as a maintenance shop.<sup>179</sup>

### Landscape Characteristic by Chronological Period

#### **Spatial Organization**

##### Agriculture

Fields under cultivation were placed adjacent to or nearby local drainages due to the richer bottomland soils, and the ability to irrigate crops. Dryland farming was not a viable option in western Montana.

#### **Land Use**

##### Residential

The Warren Hereford Ranch was one of numerous residences spread throughout the larger Deer Lodge valley.

##### Ranching

Con Warren continued to use the home ranch for general ranching activities that supported care and maintenance of his stock.

##### Grazing

Con Warren continued to use portions of the home ranch as open range for his stock.

##### Agriculture

Con Warren continued to farm the land he owned throughout the last half of the twentieth century.

#### **Cultural Traditions**

##### Irrigation ditches

Con Warren continued to clean and maintain irrigation ditches annually as he sought to improve the production of fields in the bottomlands and foothills on the west side.

##### Jack-leg fencing

Warren continued to use traditional jack-leg fencing on his ranch.

<sup>178</sup> McChristian, *Ranchers to Rangers*, np; Jack K. Anderson, Superintendent, Yellowstone National Park to J. H. Briney, Montana Power Company, July 28, 1971.

<sup>179</sup> Chris Ford Interview with Phil Berg, September 29, 1997.

## **Circulation**

Sewage treatment pond access road

The town of Deer Lodge constructed a short access road from the state highway that allowed them to operate and monitor the new sewage treatment facility, ca. 1958-1960. From the state highway, the road ran due south and then westward towards the ponds.

## **Vegetation**

Crops

By the late 1950s, Warren had largely abandoned grain cultivation and farmed a majority of his land in native hay.

## **Buildings and Structures**

Pump house (HS-86) built

Warren constructed the north pump house (HS-86) just north of the north field and adjacent to the Kohrs-Manning Ditch, ca. 1960.

Pump house (HS-87) built

Warren constructed the pump house (HS-87) north of Deer Lodge ca. 1960 to lift water from the Clark Fork River to the Kohrs Ditch.

Trailer placed

A 40 foot long trailer was placed between the garage (HS-3) and the garden at the southwest corner of the yard for use of the NPS caretaker in 1970.

Trailer placed

A second smaller trailer was placed adjacent to the first one for use as the NPS caretaker's office in 1971.

Cattle barn (HS-64) remodeled

In 1972, Warren remodeled the south side of his cattle barn (HS-64) for use as a wood and maintenance shop. New red metal siding and three overhead doors were installed.

## **Constructed Water Features**

Sewage treatment pond built

The town of Deer Lodge constructed a sewage treatment pond adjacent to the Milwaukee Railroad's borrow pits and east of the Clark Fork River ca. 1958-1960. The pond was subsequently divided into four separate holding pools in the late 1970s to early 1980s.

### **Small-Scale Features**

Gravel quarry excavated

The town of Deer Lodge operated a gravel quarry in the southwest corner of the Warren Hereford Ranch in the late 1950s.

Power line erected

The Montana Power Company erected a single pole 100 KV power line through Grant-Kohrs Ranch in 1971.

## The National Park Service and early conservation efforts, 1972-1988

### Introduction

After its acquisition of the Grant-Kohrs Ranch National Historic Site in 1972, the National Park Service focused its first decade and a half on establishing a working ranch and stabilizing and restoring, as much as possible, the materials and fabric of the historic facilities. By the mid-1970s, the first cattle and horses were acquired and stabilization work on important interpretive structures and features had begun. By the early 1980s, portions of the existing irrigation ditch system were renovated and haying on a share basis was initiated to meet livestock and park interpretive needs.

### Historical Context

In August of 1972, Congress authorized the establishment of Grant-Kohrs Ranch National Historic Site "to provide an understanding of the frontier cattle era of the Nation's history, to preserve the Grant-Kohrs Ranch, and to interpret the nationally significant values thereof for the benefit and inspiration of future generations." On August 25<sup>th</sup>, President Richard Nixon officially signed the bill into law. By the end of 1972, the National Park Foundation had conveyed the property it owned at the Grant-Kohrs Ranch to the National Park Service. As a new property, Grant-Kohrs Ranch was to be administered under the jurisdiction of Yellowstone National Park. During the same year, the Grant-Kohrs Ranch National Historic Site was administratively listed on the National Register of Historic Places and included 34 contributing buildings and 20 contributing structures.<sup>180</sup>

Warren eventually sold several additional tracts of land and easements to the National Park Service during the early 1970s. They included a narrow corridor lining the Clark Fork River and protecting the river bottom area in February of 1973, an easement to a long narrow strip containing approximately 37 acres north of his residence and west of the state highway in December of 1973, and another tract near his residence on the eastern border of the property in July of 1975. By the end of 1975, the total acreage held by the National Historic Site in fee simple had increased to 216.79 acres.<sup>181</sup>

Initial rehabilitation of the buildings composing the National Historic Site continued under the tenure of the National Park Service. Throughout the mid-to-late 1970s and into the early 1980s, much of this work focused on the stabilization and preliminary rehabilitation of the physical facilities. In 1973, emergency stabilization and preservation work was accomplished on the ranch house (HS-1). The old leaky metal roof was replaced with a non-historic wood shingled roof. In addition, the first archeological survey on the Grant-Kohrs Ranch was performed by Floyd Sharrock. A total of four prehistoric sites potentially dating from the Middle Plains Archaic to the Late Prehistoric periods were identified.<sup>182</sup>

In 1974, the Grant-Kohrs Ranch National Historic Site became an independently operating unit of the National Park Service. Numerous HABS aerial and land based photographs document the new site's condition and physical layout during this year (See Figures 2-83 through 2-96). The first superintendent, Richard Peterson, and the first historian, Paul R. Gordon arrived at the site. A

<sup>180</sup> Albright, *Historic Resource Study*, 117; National Park Service, "Superintendent Annual Report (SAR), 1975," np.

<sup>181</sup> McChristian, *Ranchers to Rangers*, np.

<sup>182</sup> McChristian, *Ranchers to Rangers*, np; Floyd W. Sharrock, "An Archaeological Survey of the Grant-Kohrs Ranch National Historic Site" (Missoula: University of Montana Statewide Archaeological Survey, 1973), 6-9.

third trailer was brought to the National Historic Site to provide housing for the historian between 1974 and 1976. This trailer was located in front of the buggy shed (HS-17) until 1976 when it was relocated next to the thoroughbred barn (HS-15). Administrative offices for the National Historic Site were subsequently leased at 314 Main Street in the town of Deer Lodge in 1975. Circa 1974-1975, a maintenance shop was set up in the dairy barn (HS-9). Rodd L. Wheaton, the regional historic architect for the Rocky Mountain Region, arranged to have the Historic American Buildings Survey (HABS) photographically and architecturally record the most significant buildings at the Grant-Kohrs Ranch National Historic Site.<sup>183</sup>

The Kohrs-Manning Ditch Company, responsible for the maintenance and operation of the irrigation ditch replaced an ineffective flume at the junction of the Kohrs-Manning Ditch and Johnson Creek in 1974. The new flume (HS-50), a rectangular frame apparatus, carried the ditch water over Johnson Creek and replaced an earlier frame flume (HS-51). Outside of the formal boundaries of the National Historic Site, the Milwaukee Railroad “de-energized” its electric lines across Montana, including that part that ran through the Warren Hereford Ranch.<sup>184</sup>

Sometime in the mid-1970s, Con Warren donated an easement to the National Park Service for a new road that was to be established just north of his house and pass in front of the big red barn (HS-64). The desire of National Historic Site officials was to allow Warren to access his active fields and pastures without passing through the historic core and to create an alternate employee access road there. The historic access road to the Warren Hereford and Grant-Kohrs Ranch had passed just north of and adjacent to Con Warren’s residence. It led due west and ran between the ranch house (HS-1) and bunkhouse (HS-2). The Warren’s requested that the new access road be limited to a service entrance for National Historic Site staff only.<sup>185</sup>

By 1975, the budget for the National Historic Site was expanded to support substantial preservation efforts. During this year, the exterior to the ranch house (HS-1) was repainted, the gutters and downspouts were replaced, and all sashes were reconditioned. Likewise, the brick entry path and the north-south walk in front of the residence were replaced with a wooden boardwalk meeting accessibility standards and similar to the original one. Four other buildings including the ice house (HS-5), cow shed, wooden granary, and the east stallion barn also received new roofs. The thoroughbred barn (HS-15) was also re-roofed and eventually housed a display of horse drawn vehicles. Masonry repairs to foundations, and grading surrounding ten additional buildings for improving drainage were made. In addition, old ranch roads throughout the landscape but particularly in the low bottom land areas, were graded and filled where necessary to raise their grade in relation to surrounding fields.<sup>186</sup>

Initial visitor service area development was also begun during 1975. Two “old structures,” including a “studs out” granary and a small floorless log cabin formerly used as a pig shelter, were purchased from the former Conrad Kohrs old Upper Ranch and brought into Grant-Kohrs National Historic Site for use as a temporary Visitor Contact Station and a public rest room. They were placed at the southeast corner of the National Historic Site near the state highway. A 30-car visitor parking lot, and a 1,100-foot trail from either side of the railroad right-of-way to the ranch house (HS-1) and parking area, and approximately 1.5 miles of new jack-leg fence surrounding the visitor contact area were also constructed at this time. In addition, new utility lines were put in

<sup>183</sup> McChristian, *Ranchers to Rangers*, np.

<sup>184</sup> *Cottonwood Chronicle* (Deer Lodge, Montana, June 2002), Vol. 2, No. 1; John Albright Interview with Con Warren, 1975; National Park Service, Historic Structure Survey Forms.

<sup>185</sup> McChristian, *Ranchers to Rangers*, np.

<sup>186</sup> McChristian, *Ranchers to Rangers*, np; National Park Service, “SAR 1975,” np; Shapins Associates, “HS-1 Cultural Landscape,” 70% Draft, 16; National Park Service, “National Register of Historic Places Registration Form: Grant-Kohrs Ranch / Warren Ranch,” 7-10.

around the National Historic Site including an underground power line to the visitor service area buildings, and a new drainage system for the lower yard in the rear of the ranch house. The drainage system consisted of a new system of drain tiles designed to alleviate the historic flooding associated with the bottom lands adjacent to the Clark Fork River. Guided tours of the property were conducted by appointment only.<sup>187</sup>

Prior to the construction of the parking area and interpretive trail, archeological investigations were conducted by Winifred M. Brown during the summer of 1975. The investigations focused on testing the National Register significance of 24PW1078, the Tom Stuart cabin site formerly located by Sharrock, and to determine the course of the historic waterway system in the area of the ranch house (HS-1). Brown's investigations discovered the former house site and the remains of an adjacent barn.<sup>188</sup>

Other significant events at the National Historic Site included the arrival of four draft horses and four Short Horn cattle acquired from the LBJ Ranch in Texas in 1975. In addition, the National Park Service carried out a survey of existing conditions at the site. The maps of the property were subsequently incorporated in John Albright's *Historic Resource Study* (1979).<sup>189</sup>

During 1976, the foundations of the bunkhouse (HS-2) and draft horse barn (HS-7) were stabilized. This work was archeologically monitored by Carol Legard from the Denver Service Center. The thoroughbred barn (HS-15), the 1935 granary (HS-23), and the chicken house (HS-22) were also re-roofed. Repainting of many historic structures contributed to stabilization efforts. During the same year, the bunkhouse (HS-2), ice house (HS-5), granary (HS-18), and the Bielenberg barn were repainted and the stallion barn (HS-14), thoroughbred barn (HS-15) and Leeds-Lyon barn (HS-16), and the buggy shed (HS-17) were whitewashed. In addition, three quarters of a mile of new jack-leg fence was constructed on the National Historic Site's northern boundary. The area surrounding the Visitor Contact Station was graded in an effort to control thistles. The ranch house (HS-1) was fitted with an alarm system, and National Historic Site caretakers moved into it. The former caretaker housing trailer was returned to Yellowstone National Park in 1976. Surrounding the ranch house, the stone and brick foundation was repainted, the brick pavers composing the front walk were removed and a new board sidewalk was reconstructed on the front or eastern yard leading from the front door to the eastern picket fence gate. The "lower yard" was leveled and the little hay meadow was reseeded. The following year the blacksmith shop / garage (HS-3), granary (HS-6), dairy barn (HS-9), brooding house (HS-21), and chicken house (HS-22) were re-roofed. In addition, a galvanized iron sheeting was put on the roof of the buggy shed (HS-17). The ice house (HS-5) and two feed storage houses were repainted.<sup>190</sup>

On July 16, 1977, Grant-Kohrs Ranch National Historic Site was formally dedicated. Prior to the dedication, the entire length of the interpretive trail was surfaced and three waysides were installed. The waysides interpreted the importance of grass and the impact of the winter of 1886-1887. In addition, during the year one mile of road was graded, 1.5 miles of jack-leg fencing was built, ten new gates were built and installed, and 130 feet of French drain was installed at the draft horse barn (HS-7). Livestock on the ranch was also increased to include Short Horn and Hereford cattle, Belgian draft horses and saddle stock, and chickens and cats. Enough cattle had been

<sup>187</sup> McChristian, *Ranchers to Rangers*, np; National Park Service, "SAR 1975," np.

<sup>188</sup> National Park Service, "SAR 1975," np; W. E. Sudderth, "Grant-Kohrs Ranch: An Archeological Glimpse of the Golden Years" (Lincoln: Midwest Archeological Center, 1985), 4.

<sup>189</sup> National Park Service, "SAR 1975," np; McChristian, *Ranchers to Rangers*, np.

<sup>190</sup> National Park Service, "SAR 1976," np; McChristian, *Ranchers to Rangers*, np; Sudderth, "Golden Years," 4.

obtained by this time to begin a small breeding program. The herd size was maintained at a “few dozen” with a number of cows and calves being sold in the fall at auction.<sup>191</sup>

During the late 1970s, National Historic Site employees began to notice and monitor erosion of the banks of the Clark Fork River as it ran through the site. Site repair and improvement continued and included the construction of approximately 900 feet of new jack-leg fence in National Historic Site administrative zone in 1978. In addition, a dirt ramp at the west end of the draft horse barn (HS-7) was also rebuilt and a new foundation for the stallion barn (HS-19) was completed. A year later a weather station was purchased and installed adjacent to the visitor center. W. E. Sudderth carried out archeological mitigation in advance of the construction of a water main line between the bunkhouse (HS-2) and ranch house (HS-1).<sup>192</sup>

From the mid-1970s onward, the National Park Service had been trying to negotiate an easement with the Burlington Northern railroad that would allow the construction of a pedestrian underpass bridge facilitating safe passage of visitors to the western side of the National Historic Site. In 1978, an agreement was finally reached with Burlington Northern and the pedestrian underpass bridge was constructed at a cost of over \$31,000.

In 1978, the Powell County weed board sprayed the Warren Ranch for weeds. The following year, they surveyed the Grant-Kohrs Ranch site and estimated that it would cost just over \$200 to spray problem weed areas with herbicide. The site was subsequently sprayed. During the same year, a program was developed by staff to “periodically clean up the ditches, streams, and Clark Fork River within the park boundaries.”<sup>193</sup>

In 1979 Nell Warren died. In anticipation of the National Park Service purchasing the remainder of his lands, Warren sold a substantial portion of his Hereford herd. Warren also had the breezeway between his residence (HS-58) and garage (HS-59) enclosed in 1980.<sup>194</sup>

With the condemnation of the existing well and ditch system water source to meet the park requirements for health and fire safety in 1979, the National Historic Site initiated an effort to connect up to a City of Deer Lodge main located just south of their property on Milwaukee Avenue. In 1980, construction was begun on a trench that would hold a water and natural gas lines. The trench ran through one of Warren’s leased hayfields to a point south of the stallion barn (HS-14).<sup>195</sup>

In 1980, Mount St. Helen’s erupted in May and left a substantial layer of ash over the entire National Historic Site. Cleanup of the site took several weeks to carry out. By the end of the year, flooding at the foot of the pedestrian trail under the railroad tracks had been identified as a problem. Several drainage options were studied. A total of five small vegetative test plots were established in areas of “former pollution” to test the regrowth and fertilization of grasses in these areas. In addition, the ice house (HS-5), the garage / blacksmith shop (HS-3), the privy (HS-8), the brooding house (HS-21) and chicken house (HS-22) were stabilized. The stallion barn (HS-16), and two feed storage houses (HS-28 and HS-31) were re-roofed with cedar shingles and a

<sup>191</sup> National Park Service, “SAR 1977,” 2-3; McChristian, *Ranchers to Rangers*, np.

<sup>192</sup> McChristian, *Ranchers to Rangers*, np; National Park Service, “SAR 1978,” 5-6; National Park Service, “SAR 1979,” np; Sudderth, “Golden Years,” 4.

<sup>193</sup> Peggy Gow, “Notes on C. K. Warren Papers,” np; Ralph Beck to Paul Kirkland, June 4, 1979; A 6419, Organization, Goals and Objectives, 1979-1993.

<sup>194</sup> McChristian, *Ranchers to Rangers*, np; National Park Service, “Historic Structure Survey Forms.”

<sup>195</sup> McChristian, *Ranchers to Rangers*, np.



public restroom was installed in a part of the garage / blacksmith shop (HS-3). During the same year, a trench for an underground telephone cable was excavated through park lands.<sup>196</sup>

In addition to the 150 head of cattle that Con Warren grazed on land leased from the Park Service, the park also grazed their own small herd of 19 cattle and 10 horses. In 1981, Grant-Kohrs Ranch agreed to stable horses from the U.S.F.S.'s Deer Lodge National Forest.<sup>197</sup>

In 1981, Cottonwood Creek flooded above the predicted 100-year flood level. As a result, visitor access to the pedestrian trail was restricted at the railroad trestle. A contractor subsequently repaved approximately 300 feet of the washed out pedestrian trail from ranch house (HS-1) to the visitor center. The machine shed (HS-12) and the cow shed (HS-13) were stabilized and re-roofed, and the chicken house (HS-22) yard fence was rebuilt. During the same year, the oxen barn (HS-10) was completely dismantled, the ground around it regraded and a new foundation was laid, prior to its reassembling. Prior to the restoration of the oxen barn, Cheryl Clemmenson performed archeological mitigation. Three quarters of a mile of new jack-leg fence were constructed along the National Historic Site's northern boundary. A mangel patch was planted south of the chicken coop and the garden south of the ranch house (HS-1) was cultivated in flowers.<sup>198</sup>

In an effort to more accurately approach the feel of a working ranch, by the late 1970s the National Historic Site had decided to contract out the operation and maintenance of its crop fields, e.g. cutting, baling and stacking of hay, on a share basis. A haying contract was subsequently awarded to Dick Walker in 1982. A total of 76 tons of hay was cut from 50 acres of meadow during the first year of the agreement. Four tons were sold by the National Historic Site at \$45 per ton. Between 1984 and 1986, hay was grown and harvested from the Stuart field, the lower meadow, and several other smaller fields. The following year, all of the irrigation ditches were cleaned and headgates replaced so that the Stuart field meadows were well irrigated for the first time in years. The result was a significant increase in grass / hay production. Ironically, the same year that the National Park Service attempted to booster the appearance of a working ranch, Con Warren sold his remaining stock and ranching equipment. Warren ceased active ranching during this year. In 1981, Warren also sold much of the immediate ranch not now owned by the Park Service to a local rancher but got it back about 1984. Presumably there was little change made to the physical landscape, structures, or other cultural features. Shortly after his retirement in 1982, Warren began leasing some of his easement lands on the West Side to local ranchers.<sup>199</sup>

In 1982, the Clark Fork (HS-89) and Slough (HS-90) bridges and the Kohrs-Manning Ditch were all rehabilitated. The bridges received new decking and approach grading. The bunkhouse (HS-2) roof was replaced and the Leed's Lyon Barn (HS-16) was restored. By 1982, the entire park boundary had been completely fenced. Underground electrical lines were installed from the coal shed (HS-4) to the brooding and chicken coops (HS-21 and HS-22). The coal shed (HS-4) was stabilized with steel rods. New information and locational and direction signs and a flag pole were installed within the administrative area. Youth Conservation Corps members cleaned trash from the Johnson Creek bed and the Kohrs-Manning Ditch. A year later, the Draft Horse Barn

<sup>196</sup> National Park Service, "SAR 1980," 3-4, 7-8; McChristian, *Ranchers to Rangers*, np; National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, (Listed 2003), 7-5, 8-64; Grant-Kohrs Ranch, National Historic Site, Special Use Permit 1586-80-0001.

<sup>197</sup> Summary of Grazing and Pack and Saddle Stock Grazing for Calendar Years, Grant-Kohrs Ranch, National Historic Site, 1981, 1982; Memorandum of Agreement, July 9, 1981.

<sup>198</sup> National Park Service, "SAR 1981," np; McChristian, *Ranchers to Rangers*, np.

<sup>199</sup> National Park Service, "SAR 1982," 14-15; "SAR 1983," 9, 16-18; McChristian, *Ranchers to Rangers*, np; "Haying Notes" (1984-1986), L3105. Warren's retirement from active ranching in 1982 served as a major factor in determining the end date for the GRKO Ranch National Historic Site period of significance.

(HS-7) foundation was substantially repaired including the replacement of the sill logs, rehabilitation of the roof support system, and the installation of new flooring and joints in the northern portion of the structure. The Ranch House (HS-1) porch was also restored. Five feed racks (HS-36-38, 43-44) were rehabilitated. The Bielenberg barn board and batten roof was also replaced. Three stock shelters were also rehabilitated. The visitor center parking lot and pedestrian trail was slurry sealed.<sup>200</sup>

After the Milwaukee Railroad declared bankruptcy in 1982, a railroad salvage crew began the removal of all rails and ties from its line beginning at the south boundary of the ranch and extending south to the City of Deer Lodge. The National Park Service attempted to negotiate the purchase of the Milwaukee Railroad's right-of-way and borrow pit area within park boundaries. In 1983, the National Historic Site acquired the 21.69 acre Milwaukee Railroad right-of-way and an additional 27.67 acres that was formerly used as a borrow pit. Several years later the park acquired two railroad cars that are now kept on the property. In 1985, a 1929 Standard Steel Cattle Car was acquired from the White Sulphur Springs and Yellowstone Railroad. The following year, a 1923 Cattle Car was acquired from the Northern Pacific Railroad Company. Both cars are currently used for interpretive purposes.<sup>201</sup>

In 1980, five small test plots were established by the National Historic Site on the west bank of Clark Fork River in an attempt to monitor vegetation growth in "slicken" soils. The soils were found to be dead and non-productive. Three years later, formal scientific research conducted by the University of Montana confirmed that high concentrations of copper, arsenic and cadmium were found to be present in the soils and vegetation of portions of the Grant-Kohrs Ranch, particularly in the lands immediately adjacent to the Clark Fork River. The contamination was found to be due to over 100 years of mining and smelting in the Butte and Anaconda areas and the fact that the Clark Fork River and its tributaries had carried heavy metals waste from tailings piles downriver. The following year, a comprehensive survey of the flora and fauna within the National Historic Site was accomplished by the University of Montana. By 1984, the Silver Bow Creek and Anaconda smelter were designated as superfund sites. Grant-Kohrs Ranch National Historic Site lay within the designated boundary of the Silver Bow Creek superfund site. In 1985, the National Historic Site fenced off the Clark Fork River to prohibit livestock from drinking its waters or coming near the contaminated soils and vegetation.<sup>202</sup>

In 1982, preliminary information began to be gathered on the park's natural resources. Spot counts of Columbian Ground Squirrel population density and dispersion were initiated. Likewise similar information was gathered on noxious weeds. By the early 1980s, the impact of beavers had become a problem to the free flow of park drainages and irrigation trenches. In 1985, the park authorized the Kohrs-Manning Ditch Company to trap and remove problem beavers from activity areas within the Ditch Company's right-of-way. In 1983, University of Montana researchers conducted a formal baseline survey of threatened or endangered flora and fauna survey within the park. Based on this survey, in 1985 the National Historic Site began to address the problem of noxious knapweed and leafy spurge, invasive weeds found within park lands that could potentially be detrimental to the health of native fields and pasture. Two main areas were identified as containing substantial weeds, along the riverine floodplain where seeds were brought in by flood waters, and along the railroad rights of way to the north park boundary. Study plots were laid out to monitor the effect of active biological pathogens on the invasive weeds. The Gall

<sup>200</sup> National Park Service, "SAR 1982," 14-15; "SAR 1983," 9, 16-18; McChristian, *Ranchers to Rangers*, np; Grant-Kohrs Ranch Completion Reports (1975-1983); "Redeck Three Bridges" (1982).

<sup>201</sup> National Park Service, "SAR 1982," 14-15; "SAR 1983," 9, 16-18; ; National Park Service, "Grant-Kohrs Ranch / Warren Ranch," National Register of Historic Places Registration Form, 7-11.

<sup>202</sup> National Park Service, "SAR 1984," np; "SAR 1985," 10, 13-14; McChristian, *Ranchers to Rangers*, np.

fly and a fungus were introduced to the weedy areas. The invasive weeds were also controlled through manual removal. After several years of monitoring the biological agents, natural methods were not found to be as effective as wished and soon thereafter, the National Historic Site introduced limited spraying of the impacted areas with 2-4D. Also during 1985, Powell County began the implementation of a Weed Management Program that sought to identify and control problem areas before they were able to spread. The Act required all federal, state or municipal governments to enter a written agreement for noxious weed control and provide a written plan for restoring vegetation to the weed board prior to disturbing any land.<sup>203</sup>

In an effort to prevent continued erosion of the Clark Fork River banks through the National Historic Site, in 1985 the National Park Service cut willow shoots growing in the riparian areas and began to root and plant additional willow trees along the Stuart Field hay meadow to stabilize the river banks there and prevent springtime erosion.<sup>204</sup>

In 1983 the ranch house (HS-1) underwent a substantial restoration. All of the furniture and other items were removed from the house in the fall of the year. A new electrical and fire and security system was installed along with a new gas furnace to replace the original coal heating system. During the same year, the park's southern boundary fence was replaced, and a subterranean gas line was excavated through park lands from Deer Lodge to the Ranch House (HS-1).<sup>205</sup>

In 1984, the granary (HS-18) was stabilized. The process included the installation of a gravel drainage area around the structure. A year later, four headgate boxes in the Kohrs-Manning Ditch were re-constructed. Sometime during the early 1980s, a squeeze chute (HS-67) was rehabilitated by the National Historic Site to replace a dilapidated one constructed by Warren. Sometime during the mid-1980s four feed racks were repaired, the board and batten roof on the Bielenberg barn (HS-11) was replaced, and three stock shelters were rehabilitated. By 1987, the south garden stone walls and steps and handrail were repaired and a new park entrance and visitor information sign was installed in the visitor center area.<sup>206</sup>

Beginning in the early 1980s, the park initiated a Land Protection Plan study. In 1985, the Draft Plan recommended the acquisition of four separate tracts from Con Warren totaling 840 acres. Warren was currently leasing these lands to an independent rancher, Harry Trowbridge, and had given him the option to buy them. As part of that lease, a trailer house was moved onto one parcel, tract 01-115, during this period just northeast of the Ranch House (HS-1).<sup>207</sup>

In 1987, the National Historic Site received title to a 6-plus acre site on its south border. The small tract was originally contained within the National Historic Site boundaries but its title was disputed with the City of Deer Lodge.<sup>208</sup>

<sup>203</sup> "SAR 1982"; McChristian, *Ranchers to Rangers*, np; Jimmy Taylor to Mill Mosier, November 18, 1985; David J. Streufert, Montana State University, County Agent, Powell County, Montana, November 28, 1985.

<sup>204</sup> National Park Service, "SAR 1985," 10, 13-14, 20.

<sup>205</sup> McChristian, *Ranchers to Rangers*, np.

<sup>206</sup> National Park Service, "SAR 1984," np; "SAR 1985," 10, 13-14, 20; "SAR 1987," 1, 10, 12; McChristian, *Ranchers to Rangers*, np.

<sup>207</sup> Superintendent, GRKO to Regional Director, RMR, June 21, 1985.

<sup>208</sup> McChristian, *Ranchers to Rangers*, np.

## Landscape Characteristic by Chronological Period

### **Natural Systems and Features**

#### Drainage system built

In an effort to drain the lower yard area in the rear of the ranch house (HS-1), a new system of drainage tiles is constructed throughout the area in the mid-1970s.

### **Spatial Organization**

#### Pedestrian trail

The construction of the pedestrian trail in 1975 and the subsequent orientation of the visitor to the National Historic Site, changes the spatial organization of and visitor experience within the property.

### **Land Use**

#### Residential

Con and Nell Warren continued to live adjacent to the National Historic Site.

#### Ranching

Con Warren and the NPS continue to use portions of the home ranch for general ranching activities that supported the care and maintenance of their stock.

#### Grazing

Con Warren and the NPS continue to use portions of the home ranch as open range for their stock.

#### Agriculture

Con Warren and the NPS continue to farm and lease portions of the land they own for agricultural purposes throughout the last half of the twentieth century.

#### Education and Interpretation

Since its establishment, the Grant-Kohrs Ranch National Historic Site has interpreted the history of ranching in Montana to the public.

#### Archeological investigations

Section 106 of the National Historic Preservation Act of 1966 required the National Historic Site to conduct archeological investigations on the federally held property. The first survey of park lands in 1973 identified four archeological sites (24PW1076, 24PW1077, 24PW1078, and 24PW1079). In 1975, the Tom Stuart cabin site (24PW1078) and an adjacent barn is formally located by NPS archeologist, Winifred M. Brown. Additional archeological investigations were carried out on

National Historic Site property throughout the last quarter of the twentieth century.

### **Cultural Traditions**

#### **Irrigation Ditches**

The NPS began to rehabilitate and repair old irrigation ditch systems in an effort to restore the historic fertility of the range and field system and for the purposes of interpreting an active working ranch.

#### **Jack-leg fencing**

The NPS revives the use traditional jack-leg fencing at the National Historic Site constructing numerous miles of new fence over the course of the next two decades.

### **Cluster Arrangements**

#### **Visitor contact area**

A new visitor contact area is designed and constructed by the NPS in 1975-1976. This area is the primary route of ingress and egress to the National Historic Site and is also where the visitor is oriented and obtains information about the site.

### **Circulation**

#### **Visitor parking area built**

A 30-car visitor parking area was graded and paved in the Visitor Service area in 1975.

#### **Pedestrian trail built**

A 1,100 foot long pedestrian trail leading from the visitor parking lot to the ranch house (HS-1) was constructed in order to facilitate access to and circulation within the National Historic Site in 1975.

#### **Park access road**

The NPS constructs a new employee access road from the state highway into the park just north of the Warren residence (HS-58). The new access road enabled park employees to enter the National Historic Site but also allowed Warren access to his ranch lands and facilities without driving through the historic core.

#### **Brick pavers removed**

The brick pavers that composed the front walk of the ranch house (HS-1) were removed in 1975.

#### **Board sidewalks built**

Board sidewalks meeting accessibility requirements were constructed in 1975 on the front or eastern yard of the ranch house (HS-1)

	leading from the front door to the gate in the eastern side of the picket fence.
Pedestrian trail surfaced	Prior to the formal dedication and opening of the park in 1977, the pedestrian trail from the visitor parking area to the ranch house (HS-1) was surfaced.
Pedestrian underpass built	A pedestrian underpass is constructed underneath the active lines of the Milwaukee Railroad and Burlington Northern Railroads in 1978.
Stone walkway replaced	The stone walkway between the ranch house (HS-1) and the bunkhouse (HS-2) was removed during the construction of a water line and then replaced in 1981.
Pedestrian trail repaved	Due to damage from flooding, approximately 300 feet of the pedestrian trail is repaved in 1981.

## **Vegetation**

Willow plantings	In an effort to prevent continued bank erosion along the Clark Fork River, the NPS planted willow trees for stabilization in 1985.
South garden re-established	The garden south of and adjacent to the ranch house is re-established and planted in flowers and vegetables in the mid-1980s.
Vegetation controlled	Problem weed areas, along the riparian floodplain and railroad rights of way, identified in the early 1980s are controlled from 1985 onwards with the aid of integrated pest management (IPM) including both biological agents and manual removal.

## **Buildings and Structures**

Trailer placed	A trailer was placed in front of the buggy shed (HS-17) in 1974 to serve as housing for the NPS historian. The trailer was moved in 1976.
Log cabin structure (001) placed	A log cabin formerly used as a pig pen and obtained from the old Kohrs "Upper Ranch" site was placed in the Visitor Service area and refitted as a temporary public restroom in 1975.

Granary structure (002) placed	A former granary obtained from the old Kohrs "Upper Ranch" site was placed in the Visitor Service area and refitted as a temporary Visitor Contact Station in 1975.
Trailer moved	The NPS historian's trailer was relocated next to the thoroughbred barn (HS-15) in 1976.
Trailers removed	The former NPS caretaker's residential and office trailers were removed from the National Historic Site in 1976.
Warren residence breezeway enclosed	Warren has the breezeway between his residence (HS-58) and garage (HS-59) enclosed.
Squeeze chute (HS-67) rehabilitated	Sometime during the early 1980s, the NPS rehabilitated a squeeze chute on the location of a former dilapidated squeeze chute west of the red barn (HS-64).
Trailer placed	Ca. 1985, a trailer is moved onto a Con Warren owned parcel, tract 01-115, for use of a rancher leasing the land.
Cattle car placed	A 1929 Standard Steel cattle car is acquired from the White Sulphur Springs and Yellowstone Railroad in 1985. The car is placed on the inactive Milwaukee Railroad line for interpretive purposes.
Cattle car placed	A 1923 cattle car is acquired from the Northern Pacific Railroad Company in 1986. The car is placed on the inactive Milwaukee Railroad line for interpretive purposes.

### **Constructed Water Features**

Drainage system built	A new system of drainage tiles was constructed in the lower yard area in the rear of the ranch house (HS-1) to facilitate drainage in the mid-1970s.
Frame flume (HS-50) built	The Kohrs-Manning Ditch Company constructed a new flume (HS-50) to replace an ineffective one at the junction of the Kohrs-Manning Ditch and Johnson Creek.
Frame flume (HS-51) removed	The NPS removed the remains of an ineffective flume (HS-51) at the junction of the Kohrs-Manning Ditch and Johnson Creek.

Water main and utility line installed

Construction was initiated in 1980 on a new water main and utility line trench from the National Historic Site's southern border through the Stuart field to a point south of the stallion barn (HS-14).

### **Small-Scale Features**

Jack-Leg fence erected

Three quarters of a mile of new jack-leg is constructed by the NPS on its northern boundary in 1976.

Interpretive waysides built

Prior to the formal dedication of the park in 1977, three interpretive waysides were erected along the pedestrian trail. The waysides related the importance of grass and the impact of the winter of 1886-1887.

Jack-Leg fence erected

Approximately 900 feet of new jack-leg fencing is erected in the administrative area in 1978.

Weather station installed

A weather station is purchased and installed adjacent to the visitor center at the National Historic Site in 1979.

Overshot stacker acquired

The park acquired an overshot stacker in 1983 to interpret early hay stacking methods.

Sweet pea trellis built

A new sweet pea trellis is built in the garden south of and adjacent to the ranch house (HS-1) in 1984.

Clark Fork River fenced

A jack-leg fence is erected to prevent livestock from approaching the Clark Fork River or its adjacent vegetation in 1985.

Garden wall, steps and rail rebuilt

The stone retaining wall, stone steps and historic handrail in the garden south of and adjacent to the ranch house (HS-1) were rebuilt by the NPS in 1987.

Entrance sign erected

A new park entrance sign is erected adjacent to the state highway just east of the visitor service area in 1987.



## Acquisition of the Con Warren Ranch, 1988-2002

### Introduction

With the acquisition of the remaining portion of the Warren Ranch in 1988, the Grant-Kohrs Ranch National Historic Site continued to implement stabilization and restoration on the newly acquired facilities. In addition, with the acquisition of water rights associated with the West Side fields, enabled the park to initiate an agricultural / grazing lease in 1989. During this period, baseline flora and fauna studies were initiated with the goal of better managing the park resources. Most recently, new curatorial / museum facilities were constructed and the restoration of the cultural landscape surrounding the Ranch House (HS-1) was begun.

### Historical Context

In 1988, the National Park Service consummated the deal that they had been negotiating with Con Warren. In June of that year, the National Historic Site purchased an additional four tracts of land including 1,059.85 acres and 34 historic structures, the remainder of the Warren Hereford Ranch property. Warren was given a life estate to his residence and associated buildings located on a single acre.<sup>209</sup>

Acquisition of the remainder of the Warren lands allowed the National Historic Site to acquire valuable water rights associated with the West Side and Kohrs-Manning ditches obtained from the Clark Fork River, Modesty Creek, Peterson Creek and Reece Anderson Creek. Access to this water allowed the National Historic Site to increase their irrigated lands and raise the productivity of adjacent fields and pasture.<sup>210</sup>

Throughout the late 1980s, rehabilitation of National Historic Site structures and features continued. In 1988, the thoroughbred barn (HS-15) and coal shed (HS-4) were given new foundations. A year later, the ranch house's (HS-1) east and southwest porches were repaired.<sup>211</sup>

In early 1989, the park had the newly acquired lands assessed. Approximately 762 acres were designated appropriate for agricultural or livestock production. During the same year, the park initiated an Agricultural Use lease program. From this year on, approximately 746 acres were leased to a local rancher for both hay production and cattle grazing. The lease stipulated the number of animal units that could be grazed on the property and the length of the grazing period. During the first year, Dave Johnson grazed 411 cattle on the newly acquired park lands. The substantial annual payment for the lease remained in the park and allowed staff to administer it and maintain the irrigation system.<sup>212</sup>

The park's efforts at pest management continued. In 1989, the park initiated a five-year agreement with the Department of Agriculture in Bozeman, Montana to be a bio-control test site under the Animal and Plant Health Inspection Service (APHIS). In 1991, adult seed head weevils and moths were released in targeted weed areas and monitored for control. In 1990, a Natural

<sup>209</sup> National Park Service, "SAR 1988," np; Summary of Grazing and Pack and Saddle stock grazing for Calendar Year 1989, Grant-Kohrs Ranch, National Historic Site.

<sup>210</sup> McChristian, *Ranchers to Rangers*, np. Acquisition of these lands also prevented their potential future development allowing for the preservation of the western viewshed.

<sup>211</sup> National Park Service, "SAR 1988," np; "SAR 1989," 1-2.

<sup>212</sup> National Park Service, "SAR 1989," 1-2.

Resources division was created at Grant-Kohrs Ranch, National Historic Site and over \$7,000 was spent on spraying noxious weeds. The following year, this total reached \$12,000.<sup>213</sup>

In 1991, Grant-Kohrs Ranch agreed to provide winter pasture for 53 head of horses / mules from Glacier National Park. This agreement was extended through the winter of 1996 but was discontinued due to the need to lease the required land to cattle ranchers. In addition to their new lands, the park also opened up grazing in a field “east of the Clark Fork River, west of Deer Lodge City limits, south of Cottonwood Creek fence line and north of the park boundary fence.” In 1991 this area was leased to a local rancher for winter pasture of 10 horses. The lease was terminated in November of 1993.<sup>214</sup>

During the early 1990s, the National Historic Site made several moves to consolidate their operations and to remove them from the center of the older historic core of the ranch most seen by visitors. In 1991, the maintenance shop was moved from the dairy barn (HS-9) to the Warren sales barn (HS-65). During the same year, the main administrative office was moved to a larger space at 210 Missouri Avenue. The curatorial office and archives, formerly located in the second floor of the ranch house (HS-1), and the maintenance office, formerly at the administrative offices, were moved to the former Warren residence (HS-58) in 1994.<sup>215</sup>

In 1992, new wayside exhibits were installed along the pedestrian path. The exhibits included a new wayside on ‘railroads.’ In addition, a new informational panel was added in the parking lot area and a new entrance gate and park signs were constructed and installed. The irrigation ditches and headgates of the Kohrs-Manning Ditch were cleaned and repaired, a storage shed (HS-34) and a loading chute (HS-69) were rehabilitated, and the headwalls on the bridge (HS-55) over the Kohrs-Manning Ditch were replaced.<sup>216</sup>

Construction was begun on a new “interpretive foot trail” through the Cottonwood Creek pasture in late 1993. The Special Use Permit allowing Pat George to lease the grazing land located there was discontinued. The interpretive trail was initiated in cooperation with the Montana Department of Fish, Wildlife and Parks and was designed to “tell the story of the relationship between the ranching industry and the natural resources that have always sustained it, and to increase public awareness of the importance of healthy riparian areas.” The Montana Department of Fish, Wildlife and Parks also supplied funds for the acquisition and planting of willows and species along the nature trail’s riparian zone. The nature trail was formally opened to the public in June of 1994. In 1995, Cottonwood Creek flooded eroding approximately 20 feet of creek bank and berm at an interpretive stop. Additional willow planting and some trail restoration was completed during the same year.<sup>217</sup>

In 1993 reclamation was begun by the State of Montana Abandoned Mine Reclamation Bureau on a gravel pit in the southwest portion of the park. The pit was fenced and subsequently filled, graded and revegetated. Tree swallow nests were installed in a variety of locations to mitigate the

<sup>213</sup> National Park Service, “SAR 1990;” National Park Service, “SAR 1991;” National Park Service, “SAR 1992;”

McChristian, *Ranchers to Rangers*, np; Ronald Lang to Cheryl Clemmenssen, November 14, 1991.

<sup>214</sup> Memorandum of Understanding between Glacier National Park and Grant-Kohrs Ranch National Historic Site, 1991-1992; Anthony J. Schetzle to Superintendent, YELL, April 24, 1996; Grant-Kohrs Ranch, Special Use Permit 2600-007.

<sup>215</sup> McChristian, *Ranchers to Rangers*, np.

<sup>216</sup> National Park Service, “SAR 1992,” np.

<sup>217</sup> National Park Service, “Grant-Kohrs Ranch Cottonwood Creek Nature Trail,” np. Ms. in the Grant-Kohrs Ranch National Historic Site Library and Archives; National Park Service, “SAR 1995.”

loss of habitat for bank swallows. During the same year, approximately 10 acres of ground was treated with Rozol to control the Columbian Ground Squirrel in the park.<sup>218</sup>

Con Warren died in March of 1993. The National Historic Site took possession of his real property in June of 1993 and Warren's heirs held an auction of his estate the following month. By 1995, the Warren residence had been converted for use as maintenance and curatorial offices and archives.<sup>219</sup>

In 1994, a Special Use Permit was issued to U. S. West to lay a trench for a fiber optics cable along the abandoned Milwaukee Railroad bed. In the process, the entire bed was sprayed with an herbicide to control weeds.<sup>220</sup>

A vegetation survey of the entire park was begun in 1993 and completed a year later by the University of Montana School of Forestry. By 1994 the entire riparian area was fenced to prohibit cattle from grazing on adjacent lands or accessing the Clark Fork River. In addition, in 1995, several cross fences were erected in the West Side hay fields. Cross fences were installed to force cattle to remain on certain pasture land and not overgraze others.<sup>221</sup>

Substantial work was done on the park's irrigation system in the mid-to-late 1990s to irrigate the additional lands acquired in 1988. Between 1994 and 1995, temporary weirs were erected on Johnson, Fred Burr, and No Name creeks. Likewise, in 1995 a temporary log boom was installed upstream from the Clark Fork River west side irrigation pump intake to insure that the debris carried by spring runoff flows would not damage the pump. During the same year, two culverts were installed in Big Gulch irrigation ditches to make harvest and removal of the hay crop easier. In 1997, a temporary diversion structure was placed in the Clark Fork River at the west side irrigation pump to supply it with a sufficient water intake, and perforated culverts or 'beaver pipes' were placed through existing beaver dams to alleviate targeted problem areas. A year later, a badly eroded concrete water diversion structure at the intersection of the West Side Ditch and Taylor Creek was repaired using rock and soil fill. The land was graded, reseeded and planted with willow trees.<sup>222</sup>

In 1996 Grant-Kohrs Ranch developed an Animal Use Plan for the park. The plan recommended that animals must be visible and accessible to park visitors. The recommended animals for the site included cattle, horses, poultry, dogs, and cats. In early 1996, the park's cattle herd was growing and included a total of 39 cows, 2 Hereford bulls, 20 calves, and 1 longhorn steer. The management strategy was to gradually build the herd over the ensuing 7 years, culling it to adjust the level as needed. By the end of 1997, the herd had grown to 45 cows, 17 replacement heifers, 45 calves, 2 bulls, 2 longhorn steers, and 1 longhorn heifer. Other animals on site included 5 Belgians, and 4 Quarterhorses.<sup>223</sup>

<sup>218</sup> National Park Service, "SAR 1993," Jack Yates to Tom Ulrich, April 19, 1993; Pesticide Use Log, Grant-Kohrs Ranch National Historic Site, N 50(1) C.F.

<sup>219</sup> National Park Service, "CLI" (Revised Draft 1/21/1997), 9.

<sup>220</sup> National Park Service, "SAR 1995."

<sup>221</sup> National Park Service, "SAR 1995," [Work Request List], Maintenance Building File, Box 3, Folder 6.

<sup>222</sup> Stream Preservation Act Permit Application, Temporary River Debris Diversion, May 26, 1995; Stream Preservation Act Permit Application, Install Temporary Water Weir, May 26, 1995; [Work Request List], Maintenance Building File, Box 3, Folder 7.3; [Work Request List], Maintenance Building File, Box 3, Folder 6; Anthony J. Schetzle to Wayne Hadley, July 25, 1997; Anthony J. Schetzle to Wayne Hadley, August 7, 1997; Montana Stream Preservation Act Permit Application, "Repair Diversion Structure on Taylor Creek," GRKO D 3219, C.F.

<sup>223</sup> National Park Service, Animal Use Plan, Grant-Kohrs Ranch National Historic Site, 1996; Grant-Kohrs Ranch, Facilities Management Division, Annual Narrative Report, 1997.

In 1996, a new non-historic jack-leg fence was erected along a portion of the Kohrs-Manning Ditch between Cottonwood and Johnson Creeks, and a new 250 foot long non-historic jack-leg fence and dirt berm were erected along Johnson Creek just east of the west corrals to prohibit cattle from gaining access to it and to stabilize erosion there. A new livestock waterer was subsequently installed at Johnson Creek.<sup>224</sup>

In late 1996, the park made the decision to lease lands that had formerly been used under an agreement as winter grazing grounds for Glacier National Park horses, for expanded cattle grazing. The decision was based in part on financial pressures and the ability to charge a greater grazing AUM rate for cattle than for horses. By 1997, the park had 156 acres in irrigated grass production producing 389 tons of grass hay, 50 acres in barley producing 100 tons of barley hay, 290 acres in pasture, 72 acres in non-irrigated pasture, and in addition to their own livestock, a total of 100 cows grazing on leased land. As the park began to focus more upon the funds received from leased grazing, fencing and control of cattle became a prominent issue. To control cattle grazing, in 1997 the park installed approximately 3,300 linear feet of cross-fencing in the West Side fields. The following year 5/8 of a mile of cross-fencing was erected "paralleling Hartz and West Side ditches and crossing between Little Gulch field and Lower Taylor field."<sup>225</sup>

In 1997, the park began drawing up a plan to reclaim and restore portions of its agricultural lands. In addition to seeding, watering with wastewater effluent from the City of Deer Lodge's sewage lagoons was initiated. Shortly after the plan was developed, the City drilled three water quality monitoring wells within the park to enable monitoring of the effluent irrigation project. The hand-line system was installed and running in 2000. The pastures irrigated included "98.3 acres east of the Western Montana Railroad and 20.1 acres just east of the old Milwaukee right of way."<sup>226</sup>

Attempts to breach beaver dams within park lands throughout the mid-1980s and 1990s did not result in a permanent solution to the problems encountered with high water levels. In 1999, the park applied to and received permission from the Montana Department of Fish, Wildlife and Parks to remove all problem beaver dams "by hand and using hand tools."<sup>227</sup>

In 2000, a new Resource Building (003), just north of the Warren Sales Barn (HS-65) in the feedlot area, was constructed by the National Park Service. The Resource Building housed maintenance and natural resources offices previously located in the Warren residence, the maintenance shop, and in the town of Deer Lodge. In June of 2002, construction was completed on a new 8,650 square foot Museum Storage / Research Room / Lab and Office building and adjacent employee parking area. The facility was located just south of the current visitor center and parking area north of and adjacent to Johnson Creek. During the same year, an NHL wayside plaque was erected just off the visitor access trail after crossing underneath the railroad trestle. The new wayside consisted of a small concrete base with brick pedestal and a 15 x 16 inch bronze plaque.<sup>228</sup>

<sup>224</sup> Montana Stream Preservation Act Permit Application, Fence Johnson Creek, September 1995.

<sup>225</sup> Grant-Kohrs Ranch, Special Use Permit, Disposition of Agricultural Lease, February 27, 1996; Anthony J. Schetzle to Superintendent, YELL, April 24, 1996; Grant-Kohrs Ranch, Facilities Management Division, Annual Narrative Report, 1997; Grant-Kohrs Ranch, Compliance Review Form, May 14, 1998.

<sup>226</sup> Deer Lodge Wastewater Effluent Irrigation Project Operating Plan, n.d.; Grant-Kohrs Ranch, Special Use Permit, GRKO 6000-017; Cooperative Agreement between National Park Service and City of Deer Lodge, Montana, September 10, 1999; Larry Frederick to Glen Green, December 17, 1999.

<sup>227</sup> Anthony Schetzle to Wayne Hadley, June 29, 1999.

<sup>228</sup> National Park Service, "Grant-Kohrs Ranch / Warren Ranch." National Register of Historic Places Registration Form, 7-43; National Park Service, "SAR 2002."

In order to provide a safer environment for herd management, in 2000 the NPS erected a portable corral and chute system. The chute and corral was 30 feet in length and was constructed of sheet metal, square tubing and round pipe and was painted brown to minimize visual impact to the historic landscape. In 2001, historic jack-leg fences on either side of the Clark Fork River adjacent to the west side of the Stuart field were moved to more accurately represent the location of Warren era fencing. Between 2001 and 2002, fields adjacent to the Clark Fork River were treated via aerial spraying with Redeem to control Canadian Thistle, and vegetation within the area along the southern park boundary west of Cottonwood Creek was pruned and cleared in an effort to reduce potential fuel load. In 2002, a temporary electrical fence was erected along the border of the pasture south of the new Visitor Center.

In 1997, one new flagstone path was created in the lower garden area, and one brick path was restored adjacent to the east and north sides of the Ranch House (HS-1) for safety reasons. The new flagstone path was laid extending from the kitchen porch steps paralleling the stone retaining wall out through to the garden area and the base of the rock stairs leading to the front lawn. A second brick path was restored extending from the boardwalk on the front lawn around the north end of the house gate to the front of the Blacksmith Shop (HS-3). A feed rack (HS-68) in the Warren Hereford Ranch complex was reconstructed in 1998. Restoration of the larger Ranch House (HS-1) yard cultural landscape was undertaken in 2001 and completed a year later. A new underground watering system was installed and a total of 33 cottonless black cottonwood trees were planted in the front yard in 2001. A year later, 24 cottonwood trees were replanted. In 2003, a replication white picket fence was installed. Work was also begun on the restoration of the historic Warren complex including the residence, garage, boat house and chicken coop. The interior of the residence was adapted for use as park headquarters. In 2001, six hazard trees surrounding the northern, eastern and southern sides of the Warren residence were removed. In 2003, a new 50 x 150 foot crushed gravel parking area was installed in the eastern portion of Whiskey Pasture, north of the Warren residence. Several existing tree stumps were also removed and historic vegetation was replanted.<sup>229</sup>

### Landscape Characteristics by Chronological Period

#### **Land Use**

Residential	Con Warren continued to live adjacent to the National Historic Site until his death in 1993.
Ranching	The NPS continued to use portions of the home ranch for general ranching activities that supported the care and maintenance of their stock.
Grazing	The NPS continued to use portions of the home ranch as open range for his stock.
Agriculture	The NPS continued to farm and lease portions of the land they owned for agricultural purposes throughout the last quarter of the twentieth century.

<sup>229</sup> National Park Service, "SAR 2001;" Shapins Associates, "HS-1 Cultural Landscape," 70% Draft, 16.

Education and Interpretation	Since its establishment, the Grant-Kohrs Ranch National Historic Site has interpreted the history of ranching in Montana to the public.
Archeological investigations	Section 106 of the National Historic Preservation Act of 1966 required the National Historic Site to conduct archeological investigations on the federally held property.
Materials curation	The construction of the new curatorial storage facility enabled the NPS to carry out the curation of museum artifacts related to the history of the National Historic Site.

### **Cultural Traditions**

Irrigation Ditches	The NPS continues to clean and maintain the existing irrigation ditch system annually for the purposes of interpreting an active working ranch, and for providing irrigated fields for grazing and haying.
Jack-leg fencing	The NPS continued to maintain old and build new traditional jack-leg fencing throughout the National Historic Site.

### **Circulation**

Flagstone and brick paths built	Separate flagstone and brick paths are reconstructed in the lower garden area and on the eastern and northern sides of the Ranch House (HS-1) in 1997-1998.
Museum Storage facility parking area	The NPS constructed a new parking area adjacent to the new museum storage facility in 2002.
Gravel parking area laid	A new 50 x 150 foot gravel parking area is laid in the eastern portion of Whiskey Pasture, north of the Warren residence

### **Vegetation**

Grass reseeded and willow trees planted	During the course of restoring an eroded concrete water diversion feature at the intersection of the West Side ditch and Taylor Creek in 1998, the area was reseeded in native grasses and willow trees were planted
Effluent wastewater irrigation	In 2000, the NPS entered a cooperative agreement with the City of Deer Lodge to

irrigate a portion of park lands with effluent wastewater.

Trees removed

In 2001, a total of six trees were removed from the southern, eastern and northern sides of the Warren residence.

Cottonless black cottonwood trees planted

Between 2001 and 2002, a total of 57 cottonless black cottonwood trees were planted in the front yard of the Ranch House (HS-1) to restore the historic landscape.

Trees planted

New historic vegetation was planted surrounding the Warren Residence in 2003.

### **Buildings and Structures**

Feed rack (HS-68) built

A feed rack (HS-68) in the Warren Hereford Ranch complex was reconstructed in 1998.

Resource building (003) built

The NPS constructed park resource building (003) just north of and adjacent to the garage / shop (HS-65) in 2000. The building housed maintenance and natural resources staff office and work space previously located elsewhere.

Museum storage facility (004) built

The NPS completed construction of a new museum storage facility south of and adjacent to the visitor parking area in 2002.

### **Small-Scale Features**

New wayside exhibits installed

In 1992 the NPS installed new wayside exhibits along the pedestrian trail from the visitor parking area to the ranch house (HS-1). The waysides included a new exhibit on railroads.

Riparian fencing erected

Based on the results of a vegetation survey, in 1994 the entire riparian area along the Clark Fork River was fenced to prohibit cattle grazing.

Cross-fencing erected

In 1995 an east-west cross fence was erected in the West Side hay fields.

Jack-Leg fence erected

A short section of non-historic jack-leg fence was erected along a portion of the Kohrs-Manning Ditch between Cottonwood and Johnson Creeks in 1996.

Jack-Leg fence erected

A 250 foot long section of non-historic jack-leg fence and earthen berm was erected along

	Johnson Creek in 1996 to prohibit access to cattle and to control erosion problems.
Livestock waterer placed	A new livestock waterer is placed along Johnson Creek in 1996.
Cross-fencing erected	Between 1997 and 1998, the park erected several thousand feet of cross fencing on the West Side fields to control grazing.
NHL wayside erected	A small concrete and brick wayside with bronze plaque was erected just off the visitor access trail after crossing underneath the railroad trestle in 2000.
Fencing moved	Jack-leg fencing on either side of the Clark Fork River adjacent to the west side of the Stuart field was moved in 2001 to more accurately represent historic Warren era fence location.
Portable corral and squeeze chute erected	A 30 foot long portable cattle corral, and squeeze chute, drum and lane were erected in the Warren feed lot area in 2001.
Temporary electrical fence erected	A temporary electrical fence was erected in the pasture south of the new Visitor Center in 2002.
Picket fence erected	A replica white picket fence was erected surrounding the front yard of the Ranch House (HS-1) in 2003.



**Animal / Breed Table**

Animal types and breeds documented to be present at the home ranch by chronological period.

<b>Johnny Grant</b>	<b>1860-1866</b>	
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1861-1866	"Cattle" [Shorthorn]	Grant bred and sold an unknown breed of cattle at his ranch. Several first hand accounts of the Grant ranch document that he had several thousand "head of cattle" on hand during this period.
1861-1866	"Ponies"	Grant bred and sold horses at his ranch. Several first hand accounts of the Grant ranch document that he had several thousand "ponies" on hand during this period.
<b>Kohrs/Bielenberg</b>	<b>1866-1887</b>	
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1866	"Cattle"	An 1866 image of the Kohrs residence shows long-horned cattle in the foreground. The breed of the cattle is not known, although they could be "Spanish" cattle due to the horn length pictured.
1866-1887	Work horses	Kohrs and Bielenberg kept a large stock of working horses at the home ranch for transportation and to aid in the management of the stock. It is not known what breeds the working horses were.
1866-1887	Cattle herds	Kohrs and Bielenberg kept two distinct herds of cattle during this period; a 'beef' herd kept at the home ranch to supply local and regional needs, and a 'breeding' herd kept in distant range lands. It is presumed that a majority of these cattle were obtained from western immigrants and therefore would have been breed types such as ... introduced to the eastern states in the eighteenth century.
1868-1887	Milk cows	By 1868 at the latest, Kohrs and Bielenberg kept at least eight 'milk cows' at the home ranch. It is not known what breed these dairy cows were.
1868-1887	Sheep	By 1868 at the latest, Kohrs and Bielenberg kept a small herd of sheep and exhibited them at the Territorial Fairs. It is not known if these sheep were kept at the home ranch.
1870	Thoroughbred horse	Kohrs advertises the 'stallion service' of a thoroughbred horse in his possession. It is not known what breed the horse was.
1872	Longhorn cattle	John Bielenberg travels to Texas and brings back a large herd of Longhorn cattle to the Deer Lodge Valley.
1872	Shorthorn cattle	Conrad Kohrs purchases his first small herd of Shorthorn cattle composed of a few bulls and several hundred cows from the Midwest. These Shorthorn cattle, and other subsequent purchases, were used to improve the breeding of his own herd and by 1874 he had begun to sell registered Shorthorn bulls to other regional ranchers for breed improvement.
1878	Thoroughbred stallion	Kohrs purchases two thoroughbred stallions for the home ranch.
1879	Clydesdale stallions	Kohrs purchases two Clydesdale stallions and "a carload of Clyde mares." From this point on, Kohrs and Bielenberg begin active breeding of a registered Clydesdale draft horse herd.
1879	Merino rams	An 1879 edition of the <i>New Northwest</i> notes that John Bielenberg possessed two merino rams. It is not known whether these were kept at the home ranch.
1884	Shorthorn	M. A. Leeson's 1884 image of the Kohrs residence documents that Kohrs and Bielenberg were breeding Shorthorn cattle at the home ranch.
1884	Hereford	M. A. Leeson's 1884 image of the Kohrs residence documents that Kohrs and Bielenberg were breeding Hereford cattle at the home ranch. This is the first documentation that Kohrs and Bielenberg owned Hereford cattle. During the same year, Kohrs also sold a registered Hereford bull to a local rancher. This strongly suggests that registered Herefords were bred by Kohrs and Bielenberg by the early 1880s at the latest.
1884	Clydesdale	M. A. Leeson's 1884 image of the Kohrs residence documents that Kohrs and Bielenberg were breeding Clydesdale draft horses at the home ranch.
1884	Percheron-Norman	M. A. Leeson's 1884 image of the Kohrs residence documents that Kohrs and Bielenberg were breeding Percheron-Norman draft horses at the home ranch.
1884	Coach horses	M. A. Leeson's 1884 image of the Kohrs residence documents that Kohrs and Bielenberg were breeding thoroughbred coach horses at the home ranch.
1884	Angus bull	Kohrs and Bielenberg exhibit an Angus bull at the 1884 Territorial Fair. The Angus was valued as a premier beef stock. It is not known whether the

		Angus breed was kept at the home ranch.
1884	Ayrshire cattle	Kohrs and Bielenberg exhibit an Ayrshire cow at the 1884 Territorial Fair. The Ayrshire was valued as a commercial dairy cow. It is not known whether the Ayrshire breed was kept at the home ranch.
1885	Hereford	Kohrs and Bielenberg exhibit Hereford heifers, cows, calves, yearlings and bulls at the 1885 State Fair in Helena.
<b>Kohrs/Bielenberg 1887-1922</b>		
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1887	Angus and Hereford cross-breeds	In an 1887 edition of the <i>New Northwest</i> , Kohrs and Bielenberg announce that they have cross-bred Angus and Short Horn heifers and cross-bred Hereford and Short Horn heifers for sale or lease.
1887 – ca. 1907	Yorkshire hogs	In an interview, Con Warren notes that Conrad Kohrs raised Yorkshire hogs but stopped doing so around 1907 or 1910.
1887 – ca. 1922	Plymouth rock chickens	In an interview, Con Warren notes that Conrad Kohrs raised bronze Plymouth Rock Chickens.
1898	Holstein	Kohrs-Bielenberg Daybook notes the presence of two Holstein cows at the home ranch. GRKO 15615.
Ca. 1900	Hereford calves	Rosenberg has noted that the Kohrs and Bielenberg home ranch records for this period document an increased sale of Hereford calves. She speculates that this may reflect a gradual transition from a steer (castrated male sold for beef) and bull (non-castrated male) raising operation to a cow and calf operation.
1906-1922	Chickens	A 1906 daybook records the purchase of chickens and roosters. This is the earliest documentation for chickens at the home ranch, although it is likely they may have been present by 1868 or shortly thereafter. Other documents note that Augusta raised Rhode Island red chickens. A 1907 railroad map also documents a chicken house (non-extant structure G) north of bunkhouse row (HS-2).
19teens-1922	Turkeys	Helen Jorgenson, a housekeeper for Augusta Kohrs, was allowed to maintain a small flock of turkeys at the home ranch while she worked there.
1918-1926	Hereford	Kohrs / Bielenberg purchase a small, approximately 30 head, purebred Hereford herd from Henry Childs called the Helena Herd.
<b>Con Warren 1922-1940</b>		
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1931	Hereford	Con Warren inherits the remnants of the Kohrs / Bielenberg purebred Hereford herd.
1931-1936	Durham	Testing for Bang's disease in Warren's cattle herd notes the presence of a small dairy herd that included Durham cows. Durham cows are a variety of milking short horned cattle. This dairy products provided by this herd were sold to the Deer Lodge Creamery during the decade. However the herd slowly phased out as an integral part of the ranching operation by the end of the decade.
1932	Belgian	Warren makes his first purchase of a Belgian stallion. He subsequently purchases a herd of Belgian mares.
1933	Registered Hereford	Warren purchases a Hereford bull and ten heifers to start his own purebred registered Hereford herd.
1933-1945	Durocs / spotted red and black pigs	Con Warren begins to raise hogs during this period constructing a hog house and yard.
1935-1940	Chicken	Warren constructs a chicken coop (HS-59) and a new brooding (HS-21) and chicken house (HS-22) documenting that chickens were kept at the home ranch during the second quarter of the twentieth century.
1936	Registered Belgian	By this year, Warren's registered Belgian herd is composed of approximately 50 mares, three stallions, and four draft teams.
1937	Hereford	119 registered cattle, 111 pure-bred unregistered cattle. Conrad Kohrs Co. Inventory, Warren Papers
1937	Milch cows	10 milch cows. Conrad Kohrs Co. Inventory, Warren Papers.
1937	Work horses	17 work horses. Conrad Kohrs Co. Inventory, Warren Papers.
1937	Belgian horses	9 purebred Belgian draft horse mares and one stallion. Conrad Kohrs Co. Inventory, Warren Papers.
1930s	Mule	Warren kept a single mule, used predominantly as a pack animal, at his ranch.

1930s	Registered and Commercial Hereford	As Warren's registered Hereford herd grew, he established two distinct groups, a 'breeding' herd composed of a few bulls and several hundred heifers that grazed within a fenced pasture and were winter fed, and a 'market' herd composed of young cattle and steers that grazed upon leased or common range.
<b>Con Warren</b>	<b>1940-1958</b>	
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1940	Registered Belgian	Warren sells his entire breeding herd of Belgian draft horses. He does however keep at least two Belgian draft horse teams at the ranch house for agricultural uses.
1940	Chickens	Warren constructs a new chicken coop adjacent to the Warren residential complex to house an unknown number of chickens.
1945	Commercial Hereford	Warren sells the last of his 'commercial' Hereford herd composed predominantly of steers. From this point on Warren produces purebred registered Herefords only beginning to actively sell Hereford bulls at auction.
1946-1958	Holstein	Warren nursed approximately 32 of his registered Hereford bull calves with a small Holstein cow herd.
1947	Registered Hereford bulls	Warren purchases TT Triumphant and Proud Star, registered Hereford bulls that introduced the genetic dwarfism gene (achondropisi) into his herd.
1948	Holstein cows	Warren purchases a number of Holstein cows from the Schumate Dairy.
1958	Registered Hereford	Warren disperses his entire herd of registered Hereford cattle at auction.
<b>Con Warren</b>	<b>1958-1972</b>	
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1958	Commercial Hereford	Warren enters the business of feeding and selling ("finishing") commercial grade Hereford managing a herd of about 350 cattle.
1963	Commercial Hereford	Warren sells his small herd of commercial grade Hereford and enters the business of raising yearling steers (castrated males).
1966	Commercial Hereford	Warren sells his small herd of yearling steers and enters the business of raising Hereford cows and calves.
<b>NPS / Warren</b>	<b>1972-1988</b>	
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1975	Draft horses (4).	Park receives four draft horses from LBJ Ranch in Texas.
	Short horn cattle (4).	Park receives four shorthorn cattle from LBJ Ranch in Texas.
1977	Herefords, shorthorns, Belgians (2), saddle stock (3), chickens and cats.	List of livestock present at GRKO.
1979	Cattle (35)	Warren grazes cattle on 216 acres leased from NPS.
1980	Hereford, shorthorn, horses, ducks, geese, chickens.	List of livestock present at GRKO.
1981	Draft horses (6), saddle horses (4).	Grazing at GRKO in 1981.
	Cattle (150).	Warren grazes 150 cattle at GRKO through agricultural lease.
1982	Cows (6), heifers (3), steer calves (3), bull (1), oxen (2), geldings (4), filly (1), mares (2), saddle horse (1), ducks (3), chickens (40), rooster (1).	List of livestock present at GRKO.
	Cattle (19), draft horses (7), saddle horses (3).	Grazing at GRKO in 1982.

1983	Cows and heifers (17), steer (3), heifer calves (7), Hereford bull (1), geldings (4), filly (1), mares (2), saddle horse (1), hens (35), rooster (1).	List of livestock present at GRKO.
	Cattle (21), draft horses (7), saddle horses (2).	Grazing at GRKO in 1983.
1984	Heifers (4), longhorn bull (1), geldings (3), filly (1), mares (2), saddle horse (1), hens (20).	List of livestock present at GRKO.
	Cattle (25), draft horses (7), saddle horses (2).	Grazing at GRKO in 1984.
1985	Cows (12), heifers (8), longhorn bull (1), Hereford bull (1), Belgians (16), saddle horse (1).	List of livestock present at GRKO.
	Cattle (20), draft horses (12), saddle horses (2).	Grazing at GRKO in 1985.
1986	Cattle (22), draft horses (7), saddle horses (1).	Grazing at GRKO in 1986.
1987	Cattle (20), draft horses (7), saddle horses (2).	Grazing at GRKO in 1987.
<b>NPS / Warren</b>	<b>1988-2002</b>	
<i>Date</i>	<i>Animal / Breed</i>	<i>Notes</i>
1988	Cattle (20), draft horses (7), saddle horses (2).	Grazing at GRKO in 1988.
1989	Saddle horses (6)	NPS leases field south of Cottonwood Creek to Pat George for grazing.
	NPS Cattle (27), draft horses (7), saddle horses (5), Dave Johnson horses (2), Dave Johnson cattle (481).	Grazing at GRKO in 1989.
1991	Horses / mules (53)	NPS leases winter pasture to Glacier NP horses.
	Horses (10)	NPS leases field south of Cottonwood Creek to Pat George for grazing.
1992	Horses (10)	NPS leases field south of Cottonwood Creek to Pat George for grazing.
	Horses / mules (54)	NPS leases winter pasture to Glacier NP horses.
1993	Horses (10)	NPS leases field south of Cottonwood Creek to Pat George for grazing.
	Horses / mules (54)	NPS leases winter pasture to Glacier NP horses.
1994	Horses / mules (110)	NPS leases winter pasture to Glacier NP horses.
1996	Cows (39), Hereford bulls (2), calves (20), longhorn steer (1), Belgians (5), Quarter horses (4), U.S.F.S. horses (5).	List of livestock present at GRKO.
1997	Cows (45), heifers (17), calves (45), bulls (2), longhorn steers (2), longhorn heifer (1), Belgians (3), saddle horses (3), leased cows (100).	List of livestock present at GRKO.

## Crop / Produce Table

Field crops and garden produce grown and seed purchased at the home ranch by chronological period.

<b>Johnny Grant</b>	<b>1860-1866</b>	
<i>Date</i>	<i>Crop</i>	<i>Notes</i>
Ca. 1863-1864	Oats	Grant cultivates "a couple of acres of oats" for at least two years in the early 1860s.
Ca. 1863-1864	Vegetables	Grant plants a large vegetable garden at his ranch (location unknown). The vegetables are devoured by beetles and grasshoppers.
1865	Oats	Conrad Kohrs purchases oat seed from Johnny Grant.
1865	Native Hay	Several tons of native hay, presumably harvested from the home ranch, is stored in the loft of a barn destroyed by fire in 1866.
<b>Kohrs/Bielenberg</b>	<b>1866-1887</b>	
<i>Date</i>	<i>Crop</i>	<i>Notes</i>
1873	Excelsior oats	Following the winter of 1872-1873, Kohrs plants excelsior oats "100 pounds to the acre" in an attempt to stock more winter feed for the cattle at the home ranch.
1870s – 1887	Hay and grains	During this period, Kohrs and Bielenberg expanded upon the old irrigation ditch system initiated by Grant. Although very little documentation exists as to the specific crops that were cultivated, it is likely that native hay and other grain crops were farmed.
1868-1887	Flowers	During this period, Augusta Kohrs plant a small garden south of and adjacent to the ranch house (HS-1). A variety of flowers are grown there.
<b>Kohrs/Bielenberg</b>	<b>1887-1922</b>	
<i>Date</i>	<i>Crop</i>	<i>Notes</i>
1889	Oats	Kohrs / Bielenberg order 4,795 lbs. of oats. It is not known whether this was seed. GRKO 15643
1890	Seed	Kohrs / Bielenberg order 1,000 lbs. of an unknown seed. GRKO 15643
1891	Seed	Kohrs / Bielenberg order 1,025 lbs. of an unknown seed. GRKO 15643
1893	Timothy	John Bielenberg order 1,000 lbs. of Timothy seed.
1894	Red clover	Conrad Kohrs orders 500 lbs. of red clover seed.
1896	Seed oats	Kohrs / Bielenberg order an unknown amount of seed oats. GRKO 15615.
1904	Wheat	J. H. Gerhmann recalls a wheat field adjacent to the creeks that was flooded by a beaver dam.
1907	Potatoes	Kohrs / Bielenberg order 2,100 potatoes. It is not known if these were seed potatoes. GRKO 15644.
1909	Alfalfa	Kohrs / Bielenberg order 1,096 lbs. of alfalfa seed. GRKO 15644.
19teens	Hay	Oral histories recall that Kohrs and Bielenberg "made a ton of hay for every cow or beef animal they had on the place, which meant 30,000 tons of hay."
<b>Con Warren</b>	<b>1922-1940</b>	
<i>Date</i>	<i>Crop</i>	<i>Notes</i>
1930-32	Hay	Warren "had a hard time putting up 100 tons" of hay from the entire farmable lands on the home ranch.
1930-1940	Potatoes	Warren grew several acres of potatoes, "up at the north end, on land he sold to Olson's."
1931	Alfalfa, timothy, clover, hay, and oats hay.	1931 hay report, Warren Papers.
1931	Hay, oats, wheat, potatoes and peas	In a letter to the Department of Agriculture, Warren reports that the potato and wheat crops were a failure, but that the hay, oat and pea crops were a minor success.

1932	Alfalfa, blue barley, oats, barley, and wheat.	In a 1932 letter to Sam McKennan, Warren reports that "I'm planning on seeding down in alfalfa, about sixty to seventy acres. We have as best as I can figure one hundred and fifty acres plowed up. I thought I would try some blue barley this year ... 25 acres. ... This gives me about 24 acres for oats, 35 acres for barley, and 26 acres for wheat." WP S18, SSF.
1937	Oats, wheat and hay.	Oats, wheat and hay harvested from Warren's fields in 1937. Conrad Kohrs Co. Inventory, Warren Papers.
1937	Feed grains	A 1937 <i>Scribners Magazine</i> article notes that 200 acres of Warren's cultivated lands are planted in feed grains, including barley, oats and wheat.
1937	Root crops	A 1937 <i>Scribners Magazine</i> article notes that 20 acres of Warren's cultivated lands are planted in root crops, including mangels or mangel-wurzel.
1937	Timothy	A 1937 <i>Scribners Magazine</i> article notes that a substantial portion of Warren's irrigated acreage is cultivated in a variety of crops including Timothy.
1937	Clover	A 1937 <i>Scribners Magazine</i> article notes that a substantial portion of Warren's irrigated acreage is cultivated in a variety of crops including Clover.
1937	Alfalfa	A 1937 <i>Scribners Magazine</i> article notes that a substantial portion of Warren's irrigated acreage is cultivated in a variety of crops including Alfalfa.
1937	Native hay	A 1937 <i>Scribners Magazine</i> article notes that a substantial portion of Warren's irrigated acreage is cultivated in a variety of crops including Native Hay.
Late 1930s	Intermediate wheat grass	Warren noted that the Dalton property was cultivated in intermediate wheat grass, a crop that did well in drought conditions.
<b>Con Warren</b>	<b>1940-1958</b>	
<i>Date</i>	<i>Crop</i>	<i>Notes</i>
1940-1958	Wheat and oats	Applications to the Agricultural Conservation Program throughout the decade document that Warren was given wheat and oats allotments from the federal program.
1943	Seed potatoes	Con Warren orders 1,000 lbs. of seed potatoes.
1948	Wheat	A 1948 <i>Western Livestock Reporter</i> article documented the crop rotation of Warren's irrigated bottom lands adjacent to the Clark Fork River. Wheat was cultivated for steer feed.
1948	Oats	A 1948 <i>Western Livestock Reporter</i> article documented the crop rotation of Warren's irrigated bottom lands adjacent to the Clark Fork River. Oats were cultivated for steer feed.
1948	Alfalfa	A 1948 <i>Western Livestock Reporter</i> article documented the crop rotation of Warren's irrigated bottom lands adjacent to the Clark Fork River. Alfalfa was one of several crops cultivated.
1948	Timothy	A 1948 <i>Western Livestock Reporter</i> article documented the crop rotation of Warren's irrigated bottom lands adjacent to the Clark Fork River. Timothy was one of several crops cultivated.
1948	Hay	A 1948 <i>Western Livestock Reporter</i> article documented the crop rotation of Warren's irrigated bottom lands adjacent to the Clark Fork River. Native hay was one of several crops cultivated. Approximately 100 acres of hay were noted on the east side of the river, and the West Side meadows were noted to produce 800 tons of hay.
1951	Grass and clover varieties	Records from Warren's participation in the federal Agricultural Conservation Program document that he attempted to reseed his pasture and range lands planting a variety of native and non-native vegetation to improve their quality. During the early 1950s, these plants included alsike clover, alfalfa, brome grass, timothy, meadow fescue, ladino clover, orchard grass and strawberry clover. "We pretty well eliminated the alfalfa and had mostly grass hay."
<b>Con Warren</b>	<b>1958-1972</b>	
<i>Date</i>	<i>Crop</i>	<i>Notes</i>
1954-1980	Hay	"Fertilizing and irrigating almost doubled the hay yield from 17,000 – 18,000 to 30,000 bales, and then I found that using fertilizer and plenty of irrigation, I could maintain some stands without plowing them up all the time." (Con Warren to Rex Meyers, 8/14/1980).

1958-1972	Hay	By the late 1950s, Warren had abandoned the cultivation of grains at the home ranch because he could purchase inexpensive grain on the open market. Native hay therefore became the predominant crop cultivated in his irrigated fields. Towards the last quarter of the twentieth century, Warren leased a number of his hay lands to local farmers.
1962	Hay	Con Warren harvests 590 tons of hay.
1966 - 1972	Hay and grass	Warren winters and summers his small cow and calf herd feeding them "just on hay and grass."
1969	Hay	Con Warren harvests 31,395 bales of hay from his fields.
<b>NPS / Warren</b>	<b>1972-1988</b>	
1982	Hay	NPS contracts haying on a share basis and harvests 2,667 bales or 76 tons on 50 acres of meadow.
1984	Hay	NPS contracts haying on a share basis and harvests 2,834 bales.
1985	Hay	NPS contracts haying on a share basis and harvests 1,031 bales.
1986	Hay	NPS contracts haying on a share basis and harvests 1,498 bales.
<b>NPS / Warren</b>	<b>1988-2002</b>	
1988	Hay	NPS harvests 530 tons of hay.
1989-1996	Hay	Dave Johnson initiates a multi-year grazing and haying lease agreement with the NPS.
1993	Hay	NPS harvests 19,713 bales of hay.
1994	Hay	NPS harvests 11,513 bales of hay.
1995	Hay	NPS harvests 10,822 bales of hay.
1996	Hay	NPS harvests 17,726 bales of hay.
1997	Hay and barley hay	NPS harvests 9,462 bales of hay, and 1,830 bales of barley hay.
1998	Hay	NPS harvests 5,103 bales of hay.
2001	Hay	NPS harvests 468 tons of hay.

### Field / Pasture Table

The following table records named fields, meadows and pastures in the documentary record. As expected, named fields are more prevalent during the Conrad Warren era of the last three quarters of the twentieth century when irrigation and cultivation at the home ranch was dramatically expanded. However field names used during the mid-twentieth century were most likely carried forward from earlier periods, and may relate to both their location near prominent geographic features and former landowners. Where possible, historic and contemporary field names are cross-referenced in the Inventory Tables of Existing Conditions and Contributing Resources found in Chapter Four.

Date	Field / Meadow/ Pasture Name	Crop / Grazing	Location / Description	Notes
1908	Stuart Field	No crop mentioned	The Stuart field was most likely acquired with the purchase of the Tom Stuart place in 1884. It is likely that the area immediately south of the Ranch House (HS-1) and east of the Kohrs-Manning Ditch was called the Stuart field during the Kohrs-Bielenberg era.	Con Warren noted that the Stuart Field had not been plowed since 1908.
1931	Lower Meadow	Hay	East along river	Hay report, Warren Papers
	Willow Meadow	Hay	Adjacent to river, below horse pasture	
	Stuart Meadow	Hay	As above	
	River Bridge Field	Hay	West Side	
	Lower West Side Field	Timothy and clover / oats hay / hay		
Late 1930s	Dalton property	Intermediate wheat grass	Former Dalton property	Interview with Con Warren
1969	West Side	Hay	West Side	Hay report, Warren Papers.
	Taylor Creek	Hay	The use of the Taylor Creek, Little Gulch, and Big Gulch fields most likely date to their acquisition by Warren in the late 1930s.	
	Little Gulch	Hay	The use of the Taylor Creek, Little Gulch, and Big Gulch fields most likely date to their acquisition by Warren in the late 1930s.	
	Stuart Field	Hay		
	Lower Meadow	Hay		
	Big Gulch	Hay	The use of the Taylor Creek, Little Gulch, and Big Gulch fields most likely date to their acquisition by Warren in the late 1930s.	



1980	Lower Meadow	Grazing	"South of an east west line extending from the west boundary of the Chicago, Milwaukee, St. Paul and Pacific Railroad right of way to the east bank of the Clark Fork River and four hundred feet north of and parallel to the north section line of Sections 32 and 33."	Grazing agreement between Con Warren and NPS
	Stuart Pasture	Hay	"West of the Kohrs-Manning Ditch and east and/or north of the small supply ditch used to irrigate this pasture."	
1984	North west field	Hay		NPS Haying notes
	Next small field	Hay		
	Large west field	Hay		
	Stuart field (along river)	Hay		
	Stuart field	Hay		
1985	Stuart field	Hay		NPS Haying notes
	Lower meadow	Hay		
1986	Stuart corral	Hay		NPS Haying notes
	Stuart field	Hay		
	East of slew	Hay		
	West of slew	Hay		
	Stuart (West of Kohrs-Manning Ditch)	Hay		
	East of Kohrs Manning	Hay		
1996	Stuart field	Hay / Barley Hay		NPS Hay notes
	Taylor meadow	Hay / Barley Hay		
	Pump meadow	Hay / Barley Hay		
1997	Stuart meadow	Hay / Barley Hay		NPS Hay notes
	Taylor creek meadow	Hay / Barley Hay		
	Big Gulch meadow	Hay / Barley Hay		
1998	Little Gulch field	Not mentioned		GRKO Compliance Review Form
	Lower Taylor field	Not mentioned		
	Taylor creek	Hay		NPS Hay notes
	Stuart	Hay		
2000	Front field	Not mentioned	East of the railroad right of way, west of Main Street (I-90) and north of Warren Hereford feed lots and corrals.	Effluent Project
	L-Barn field	Not mentioned	West of the railroad right of way, east of the Kohrs-Manning Ditch, north of the L-Barn, and south of the sewage lagoons.	Effluent Project
2001	Taylor	Hay		NPS Hay notes
	Stuart	Hay		
	Lower meadow 2-__1 west	Hay		
	Lower east side meadow	Hay		
2002	West side 2-__1 (upper, middle, lower)	Hay		NPS Hay notes
	Taylor creek (Stack field, up 1, up 2, down 1, down 2, down 3, down 4)	Hay		
	Stuart / Stuart Annex	Hay		

## Water System Table

Establishment dates for the following water systems are taken from water right claims. Those water systems not linked to a known water rights claim number are listed at the bottom of the table.

Water System Name	Originator	Date of Origin	Source	Use	Montana Water Right No.
Unnamed ditch system	Grant	1862	Clark Fork River	Stock	162341
Unnamed spring	Grant	1862	Unnamed spring, tributary of Clark Fork River	Stock	162342
Unnamed spring	Grant	1862	Unnamed spring by Draft Horse Barn	Irrigation	162343
Unnamed ditch	Kohrs-Bielenberg	1866	Johnson Creek	Stock	162340
Unnamed ditch	Kohrs-Bielenberg	1866	North fork of Johnson Creek	Stock	216098
Kohrs-Manning Ditch	Kohrs - Bielenberg	1872	Clark Fork River	Stock	162339
Johnson Ditch (?)	Kohrs-Bielenberg	1884	Johnson Creek	Irrigation	162344
Kohrs-Manning Ditch	Kohrs-Bielenberg	1884	Johnson Creek	Stock	162335
Kohrs-Manning Ditch	Kohrs-Bielenberg	1884	Clark Fork River	Stock	162336
Kohrs-Manning Ditch	Kohrs-Bielenberg	1884	Unnamed spring, tributary of Clark Fork River	Stock	162338
Kohrs-Manning Ditch	Kohrs-Bielenberg	1885	Taylor Creek	Irrigation	092405
Pump	Kohrs-Bielenberg	1885	Clark Fork River	Irrigation	092041
West Side Ditch	Kading, et. al.	1889	Clark Fork River	Irrigation	092043
Pump	Kohrs-Bielenberg	1890	Unnamed spring, tributary of Clark Fork River	Domestic (Ranch House, HS-1?)	162346
Kohrs-Manning Ditch	Kohrs-Bielenberg	1895	Clark Fork River	Irrigation	092044
Unknown	Kohrs-Bielenberg	1904	North fork of Johnson Creek	Commercial (Lawn and garden use)	215969
Well	Kohrs-Bielenberg	1919	Ground Water	Domestic (Ranch House, HS-1?)	162347
Kohrs-Manning Ditch	Warren	1931	Clark Fork River	Irrigation	162345
Well	Warren	1934	Ground Water	Stock	092029
Well	Warren	1934	Ground Water	Domestic (Warren residence?)	092030
Well	Warren	1934	Ground Water	Domestic	092031
Kohrs-Manning Ditch	Warren	1940	Cottonwood Creek	Stock	162334
Kohrs-Manning Ditch	Warren	1940	Clark Fork River	Stock	162337
Pump	Railroad / NPS	1942	Clark Fork River	Commercial (Railroad gravel pit)	090691
Well	NPS	1999	Ground Water	Stock	109125
<b>Other Water Systems</b>					
Hartz Ditch	Kading, et. al. (?)	Ca. 1890s (?)	Lost Creek	Irrigation	N/A
Kohrs 'Big' Ditch	Kohrs-Bielenberg	Late 19 <sup>th</sup> c. (?)	Clark Fork River	Irrigation	N/A
Salmonsens Waste Ditch	Kading, et. al. (?)	Ca. 1890s (?)	Taylor Creek	Irrigation	N/A
Taylor Ditch	Kading, et. al. (?)	Ca. 1890s (?)	Taylor Creek	Irrigation	N/A
Effluent standpipe / hand line system	Deer Lodge / NPS	1999	Sewage Lagoons	Irrigation	N/A

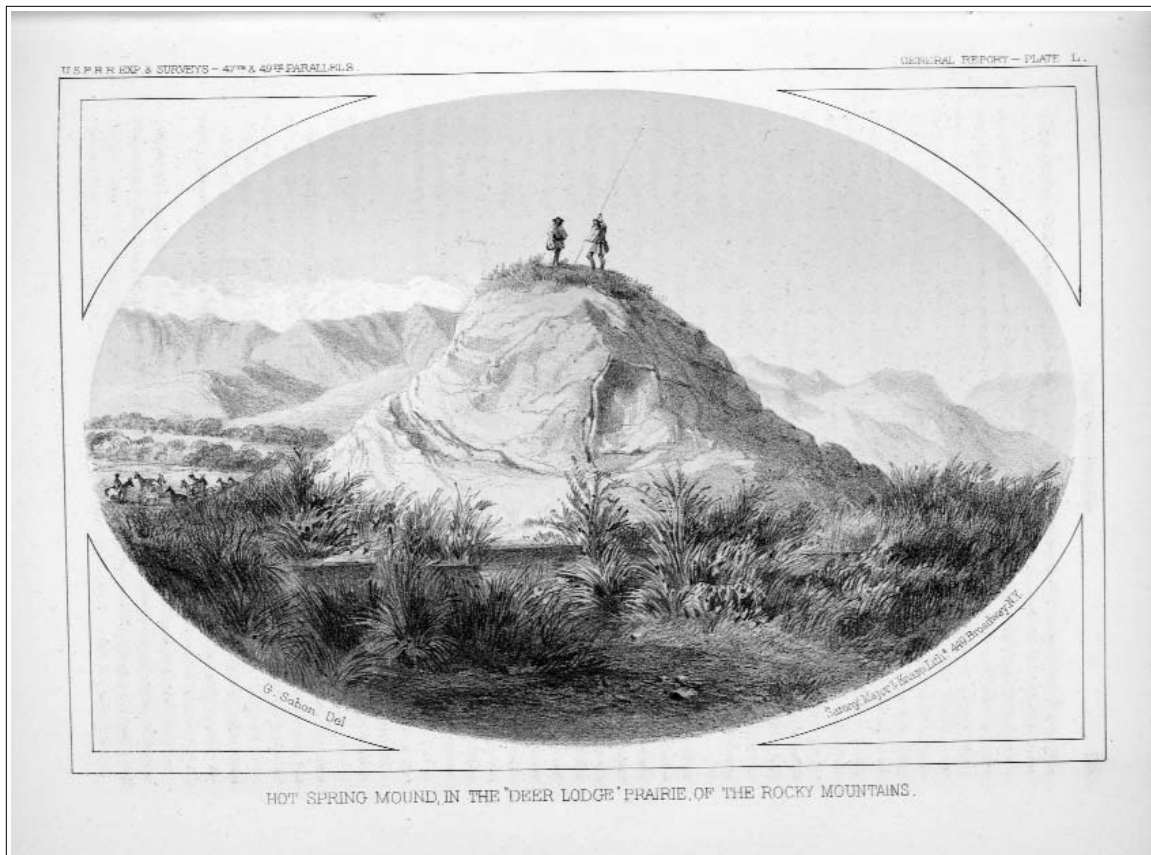


Figure 2-1: Hot Spring Mound in "Deer Lodge" Prairie of the Rocky Mountains, circa 1855-1860.

Source: Library of Congress, American Memory Collection. U.S. Serial Set, Number 1054 House Executive Document 56, 36th Congress, 1st Session, Hot Spring Mound, in the "Deer Lodge" Prairie, of the Rocky Mountains (<http://memory.loc.gov>).



Figure 2-2: Residence of John Grant, near Deer Lodge City, MT. August 6, 1865. Drawing by Granville Stuart.

Source: Stuart, Granville. "Residence of John Grant," August 6, 1865. In *Diary and Sketchbook of a Journey to "America" in 1866, & Return Trip up the Missouri River to Fort Benton, Montana*. Reprinted from the *Virginia City Montana Post* of January 1867. Los Angeles: Dawson's Book Shop, 1963.

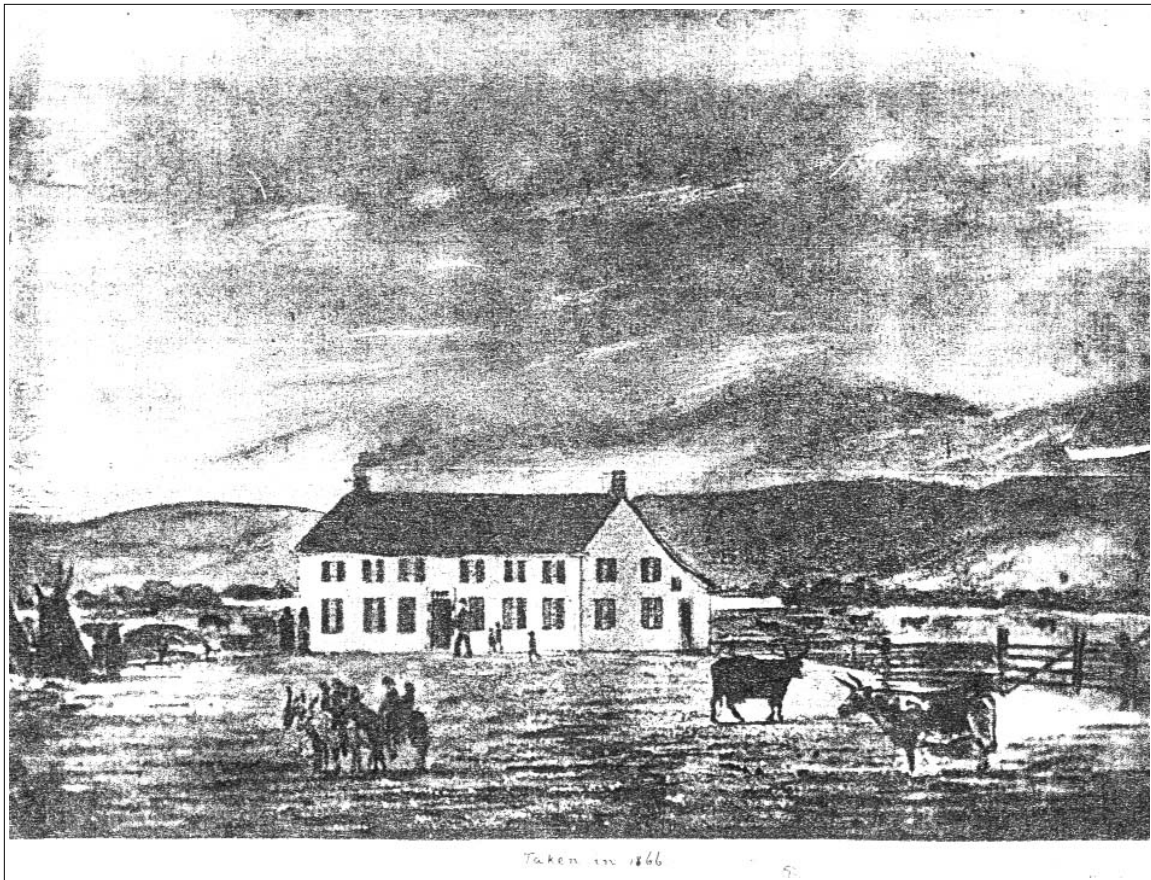


Figure 2-3: Residence of John F. Grant, purchased by Hon. Conrad Kohrs in 1866.

Source: Anonymous. "Residence of John F. Grant, purchased by Hon. Conrad Kohrs in 1866." Taken in 1866. Grant-Kohrs Ranch National Historic Site archives. Original image located at the Montana Historical Society.

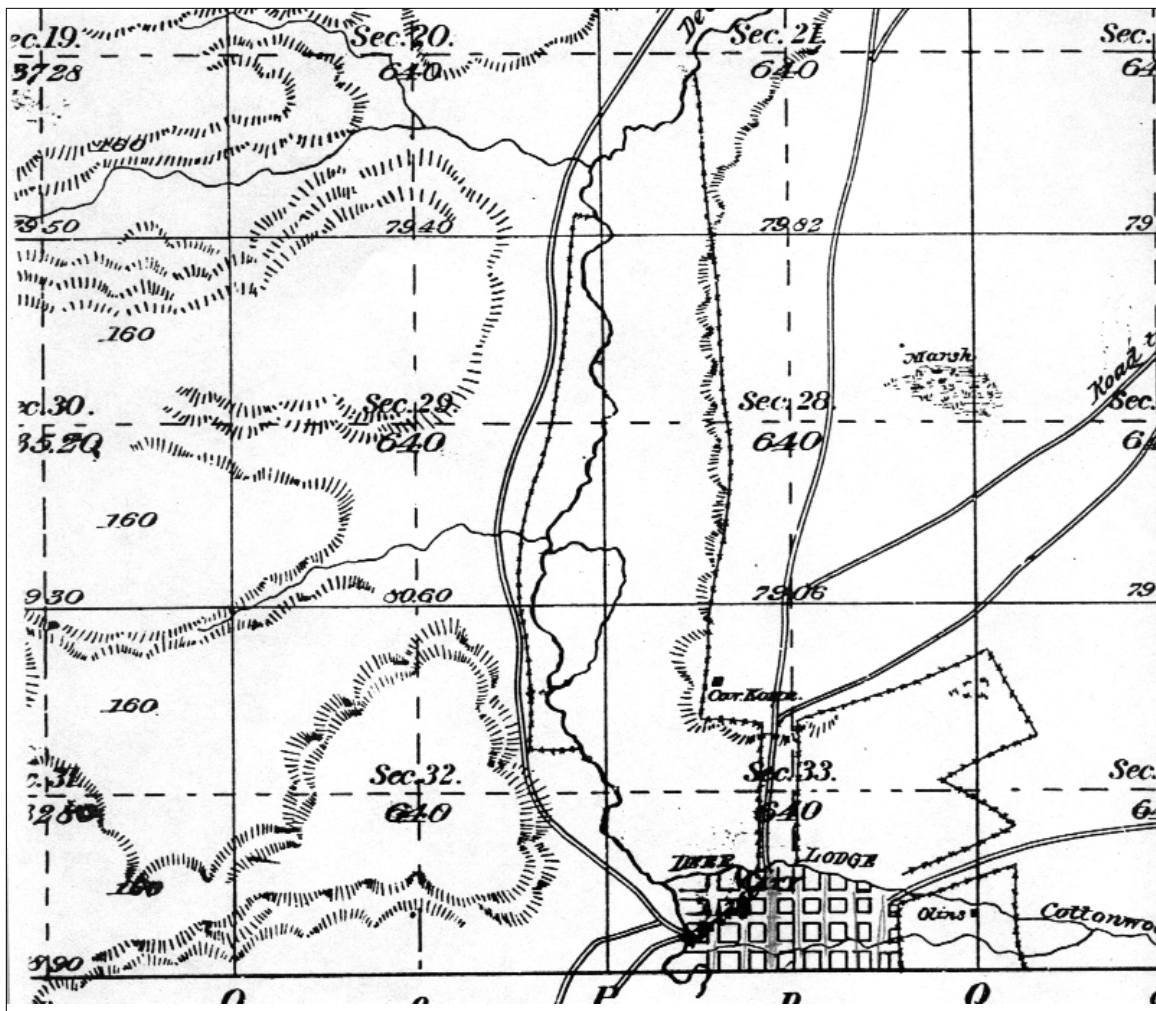


Figure 2-4: Detail of 1869 Survey T8N, R9W, showing Grant-Kohrs home ranch.

Source: U. S. Surveyor's General Office. Plat of Township 8 North, Range 9 West of the Principal Meridian, Montana. W. W. Johnson, October 1868. Billings: Bureau of Land Management. S. Meredith, Surveyor General, January 5, 1869.



Figure 2-5: Detail, Deer Lodge City, Montana 1881.

Source: Library of Congress, American Memory Collection. Rand McNally and Company, Chicago, 1881. Indexed county map of Montana with a new and original compilation and index, designating all post office towns and railroad stations. Call No. G4250 18811.R3 RR 247 (<http://memory.loc.gov>).

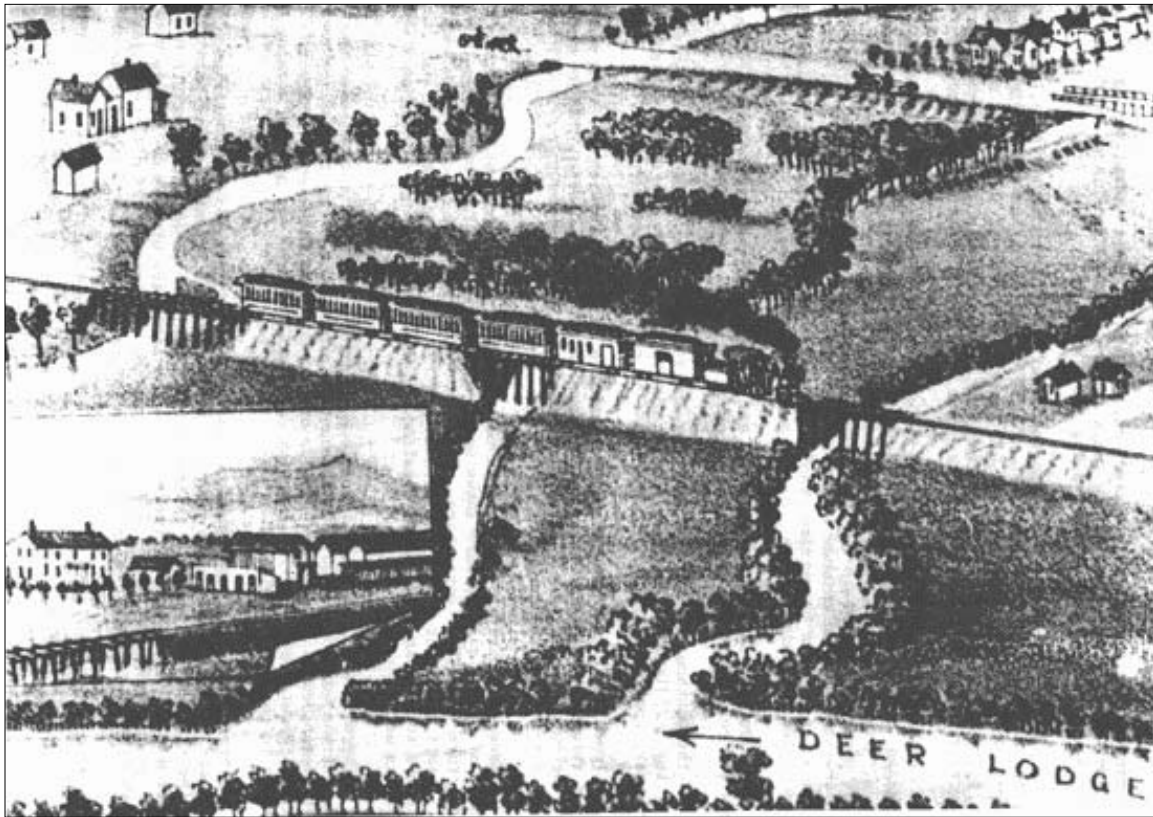


Figure 2-6: Bird's Eye View of Deer Lodge, County seat of Deer Lodge County, Montana. Inset showing the Grant-Kohrs Ranch House (Stoner), 1883.

Source: Stoner, J. J. "1883 Bird's Eye View of Deer Lodge City, County Seat of Deer Lodge County, Montana."  
Milwaukee: J. J. Stoner, 1883. Grant-Kohrs Ranch National Historic Site archives. Catalog no. GRKO 13985.



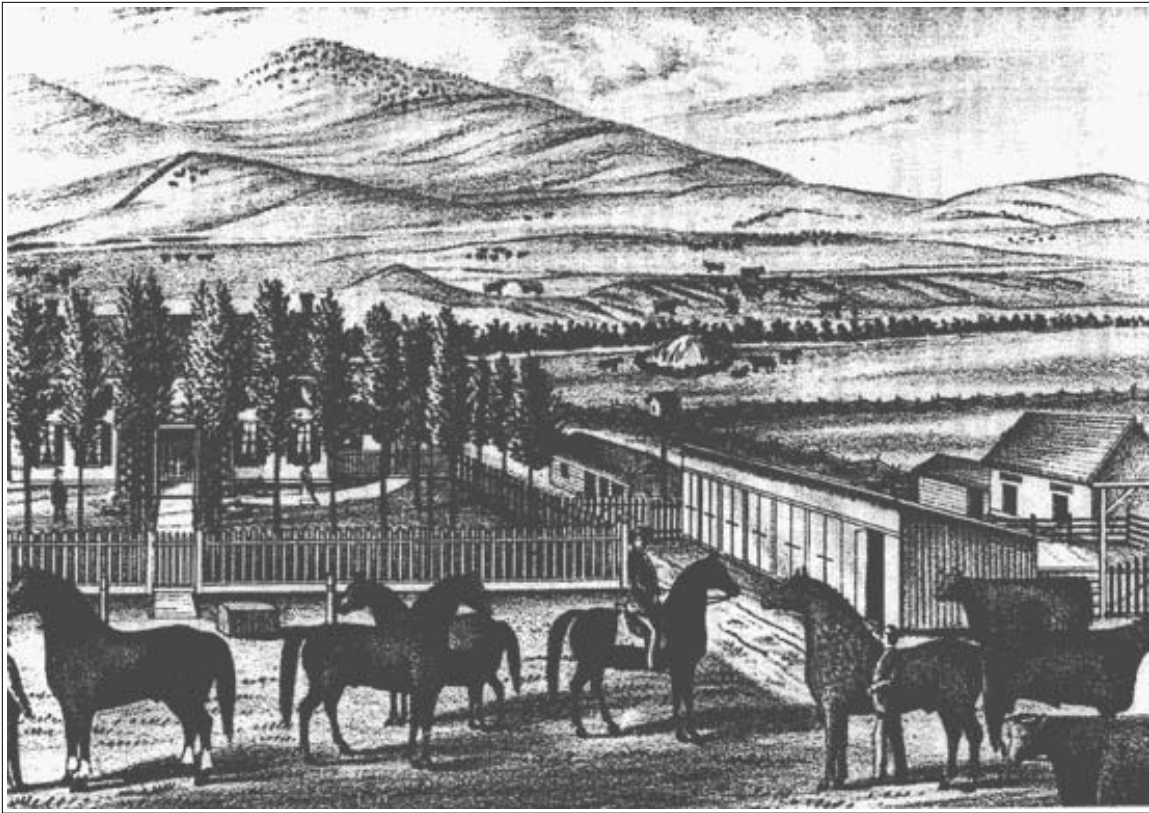


Figure 2-7: Grant-Kohrs ranch house published in *History of Montana*, (M.A. Leeson), 1884.

Source: Leeson, M. A. "Residence of Conrad Kohrs, Deer Lodge, Montana," 556. In *History of Montana*, 1884. Grant-Kohrs Ranch National Historic Site archives. Catalog no. GRKO 15668.

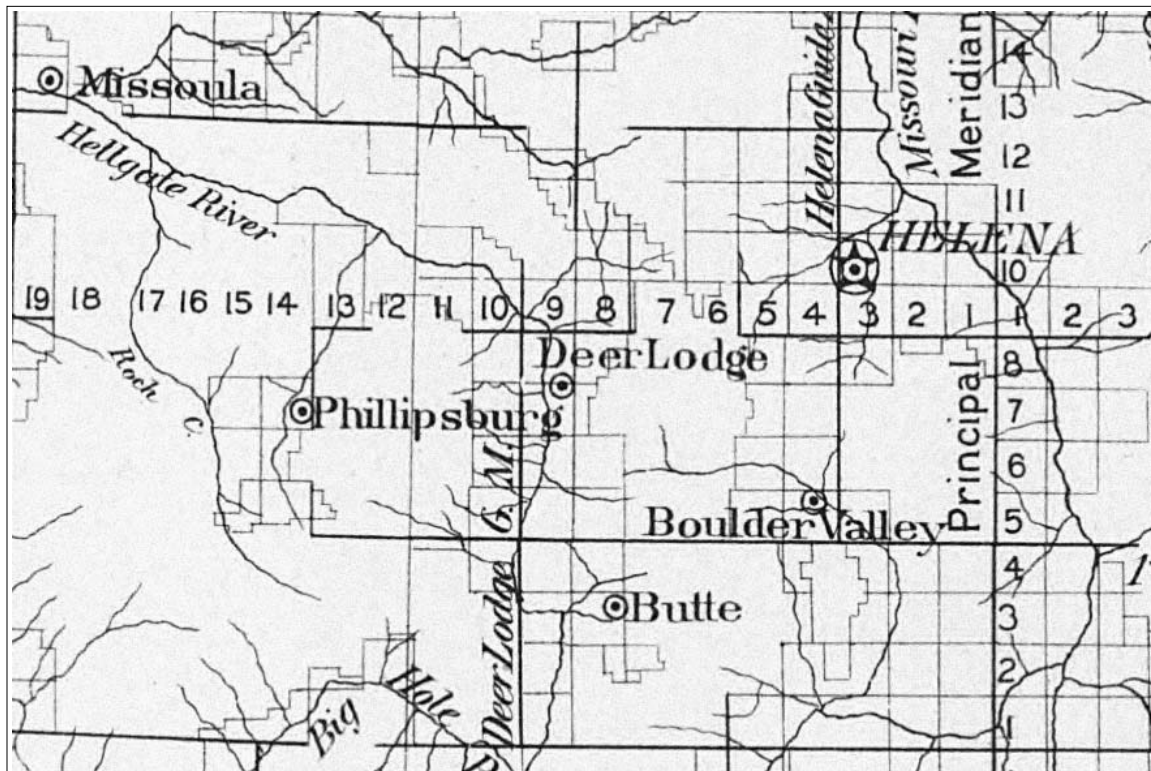


Figure 2-8: Detail of Deer Lodge Valley vicinity, Montana 1891.

Source: Library of Congress, American Memory Collection. U.S. Serial Set, Number 4015, 56th Congress, 1st Session, Pages 942 and 943, Indian Land Cessions in the United States, 1784 to 1894 (<http://memory.loc.gov>).



Figure 2-9: (16271) Front yard of Grant Kohrs Ranch House, circa 1900.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-10: (16281) Area in front of Grant Kohrs Ranch House, easterly view with phaeton buggy, circa 1900.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-11: (6276) William Kohrs Memorial Library Dedication. Men with long coats, trees and front yard of Grant Kohrs Ranch House, 1903.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-12: (16389H) Front yard of Grant Kohrs Ranch House with Will and Harry Gehrmann on horses, circa 1904.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-13: (4422HS) John Bielenberg and Gehrmann boys, circa 1904.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-14: (16533G) Robert and Anna Warren among whitewashed tree trunks, circa 1908.

Source: Grant Kohrs Ranch NHS Archives



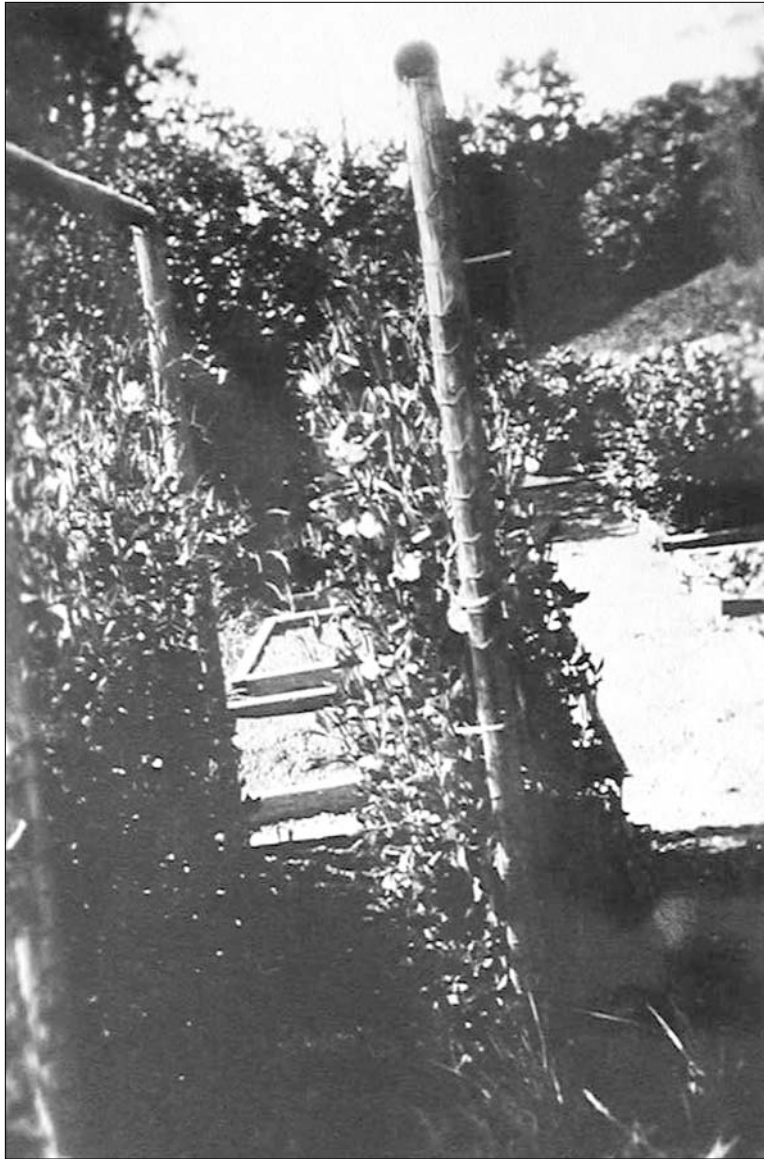


Figure 2-15: (1588149) Sweet Peas on trellis, circa 1910's.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-16: (11400L) Lower Ranch Yard circa 1900.

Source: Grant Kohrs Ranch NHS Archives

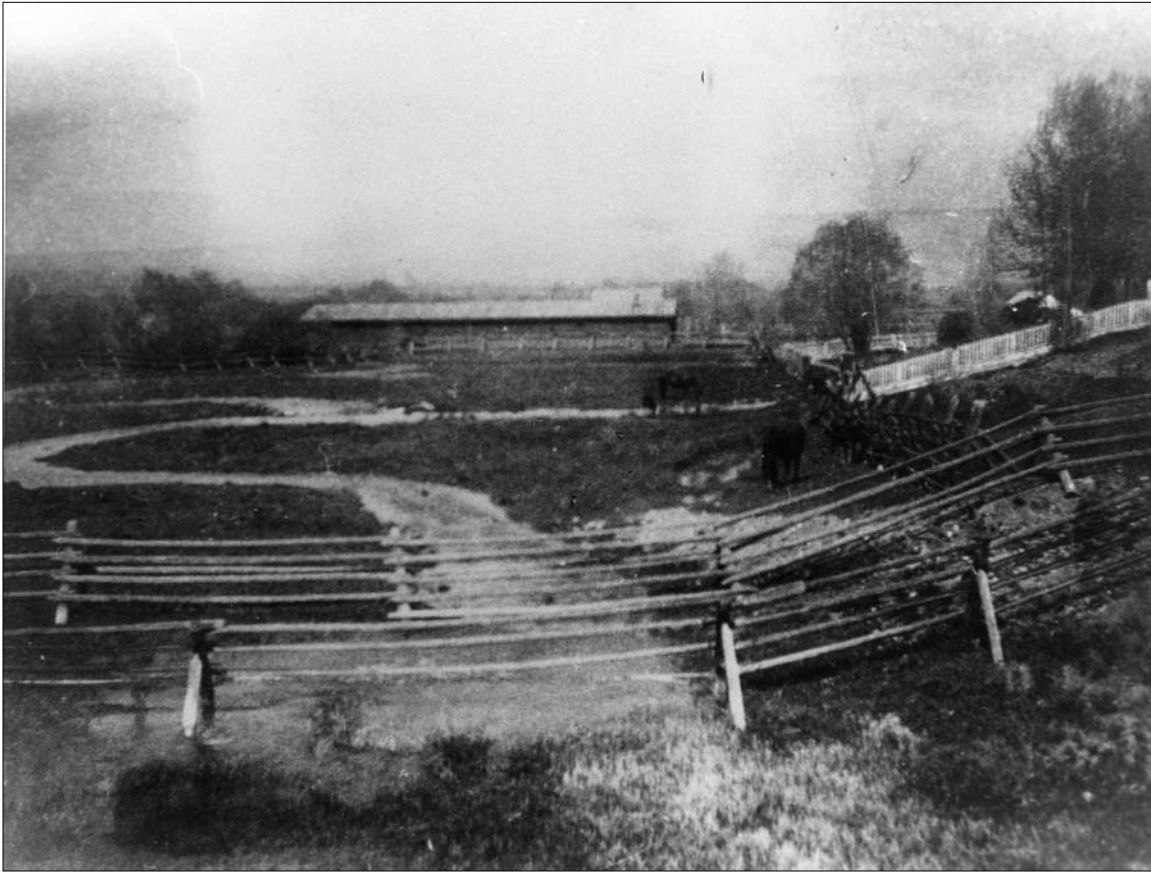


Figure 2-17: (CI, X) General view of ranch, Montana Historical Society Print, circa 1900.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-18: (6280H) Rear yard of Grant Kohrs Ranch House with Conrad and Augusta, circa 1890.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-19: (A3, XXXVII) Con Warren putting up hay with a beaver slide, circa 1910.

Source: Grant Kohrs Ranch NHS Archives

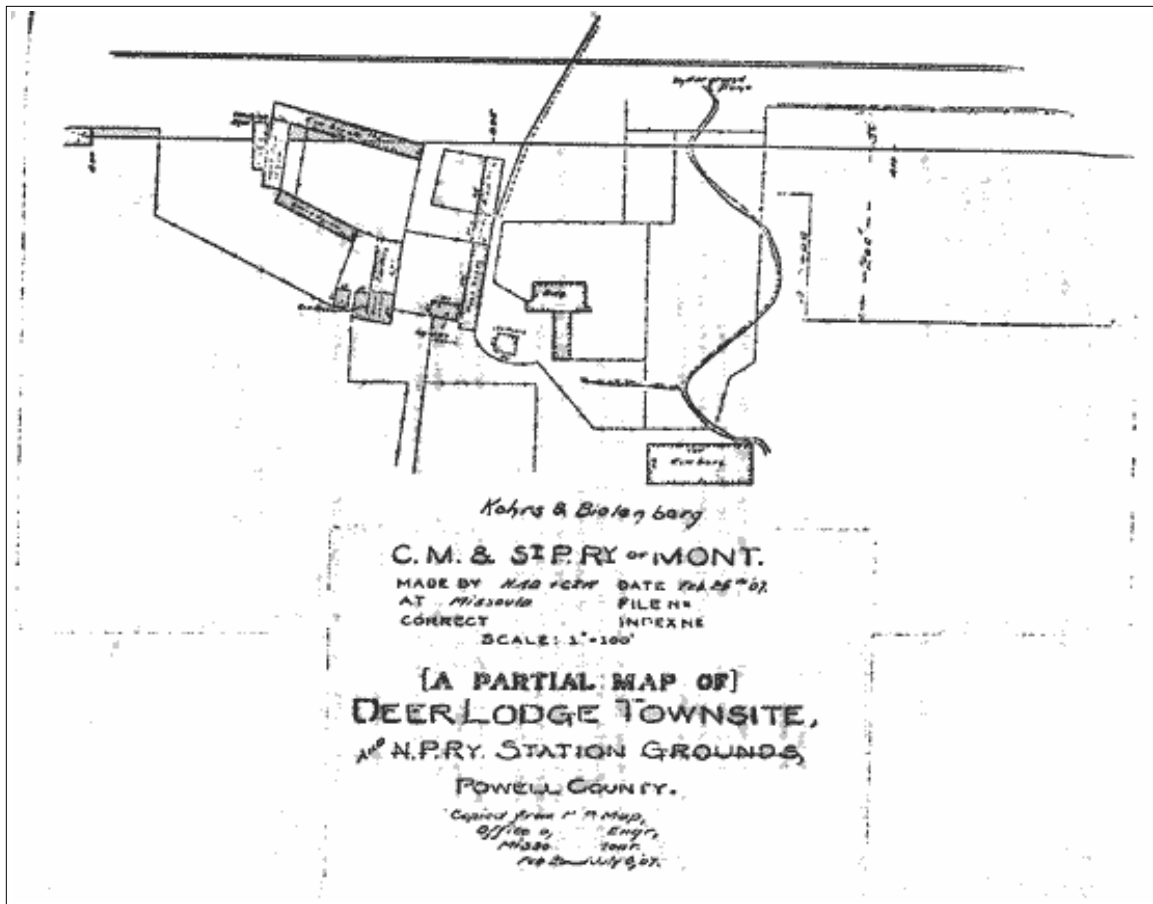


Figure 2-20: Partial Map of Deer Lodge Townsite, 1907.

Source: Chicago, Milwaukee, and St. Paul Railway of Montana. "A Partial Map of Deer Lodge Townsite and N.P.R.Y. Station Grounds, Powell County," Prepared by the Office of the Division Engineer, Northern Pacific Railroad, February 25, 1907. Ms. on file at the Grant-Kohrs Ranch National Historic Site Library and Archives, Deer Lodge, Montana.

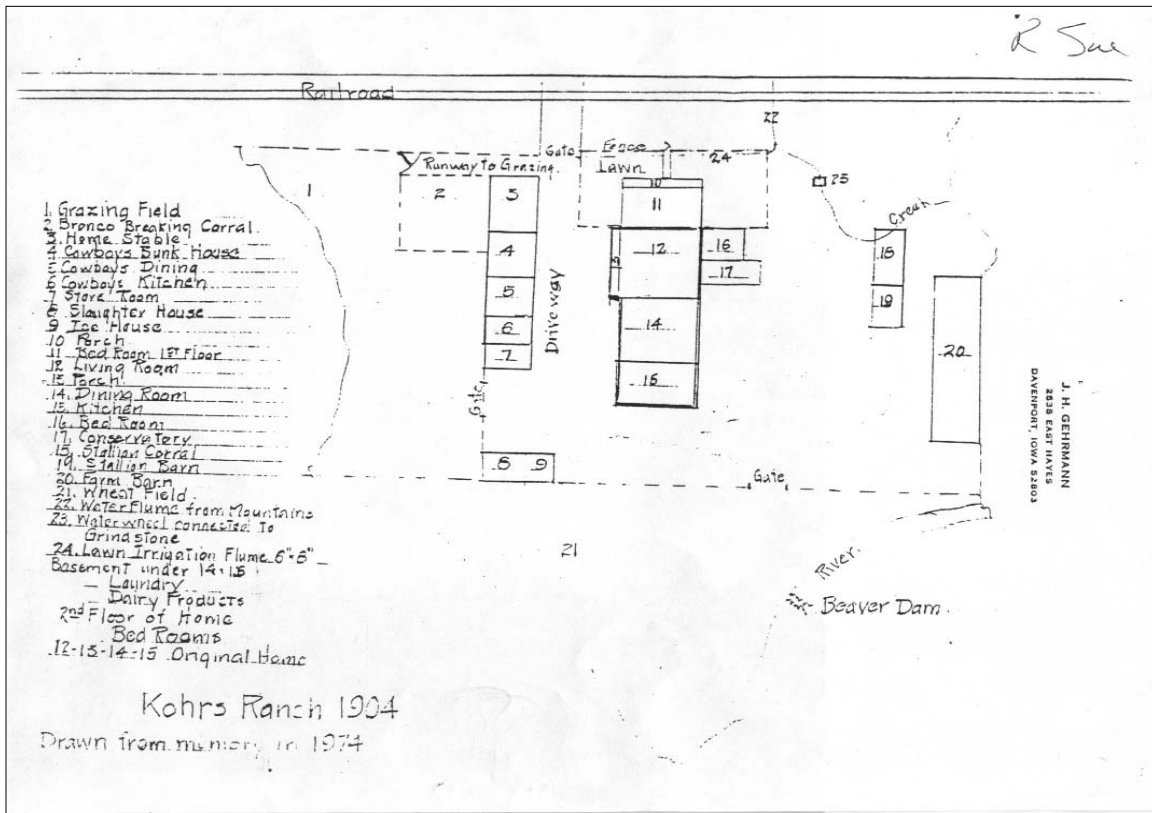


Figure 2-21: J. H. Gehrmann, "Kohrs Ranch 1904. Drawn from Memory in 1974," 1974.

Source: GRKO 15999 Series 1 Tape 7 Harry Gehrmann with Rex Meyers, January 4, 1982. Map dates 1974



Figure 2-22: (4995TH) Threshing hay, Ben Goldie's thresher, 1938.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-23: (4996TH) Threshing grain, Ben Goldie's thresher, Conrad Warren watching, 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-24: (4999TH) Threshing grain, Ben Goldie's thresher, Conrad Warren watching, 1938.

Source: Grant Kohrs Ranch NHS Archives

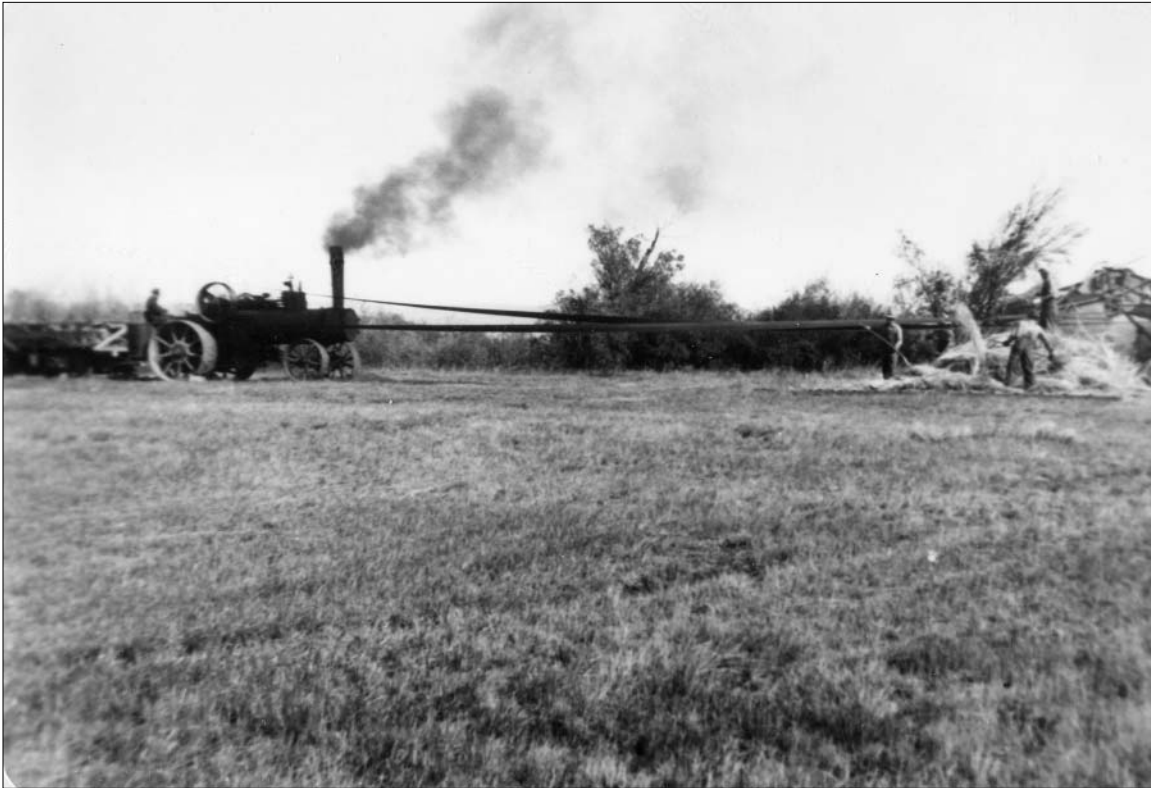


Figure 2-25: (4997TH) Threshing grain, Ben Goldie's thresher, 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-26: (4998TH) Threshing hay, Ben Goldie's thresher, 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-27: (16287) Front view of Grant Kohrs Ranch House, circa 1910.

Source: Grant Kohrs Ranch NHS Archives

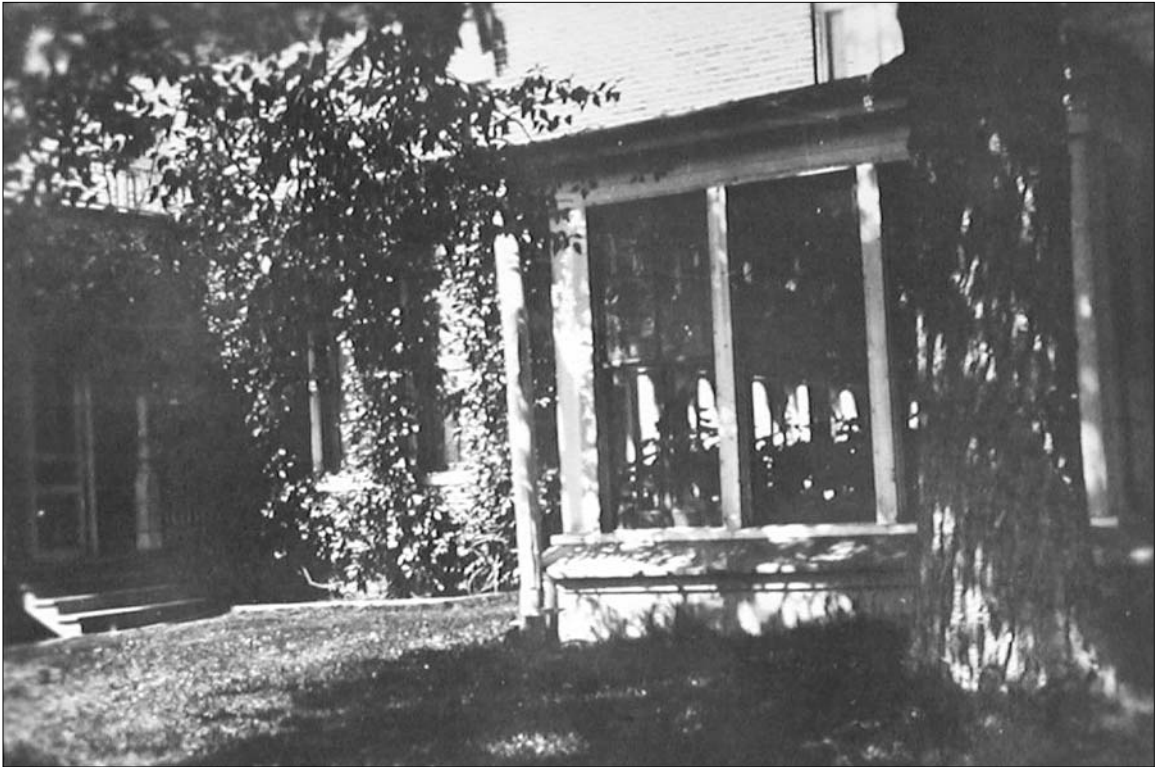


Figure 2-28: (15881-43) Side of Grant Kohrs Ranch House, conservatory, circa 1915.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-29: (Bache.12) Auntie in drive, Anna Kohrs Boardman, no date, possibly 1925.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-30: (Bache.2) Augusta Kohrs in the garden watering plants, circa 1930.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-31: (16109A) Feed Bunk (HS-52), circa 1940.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-32: (16109B) Feed Bunk (HS-52), circa 1940.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-33: (16000L) Three horse team and moldboard plow, circa 1935.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-34: (15884.112) Feeding Belgians and Herefords in the field south of HS-58. No date, possibly 1935.

Source: Grant Kohrs Ranch NHS Archives

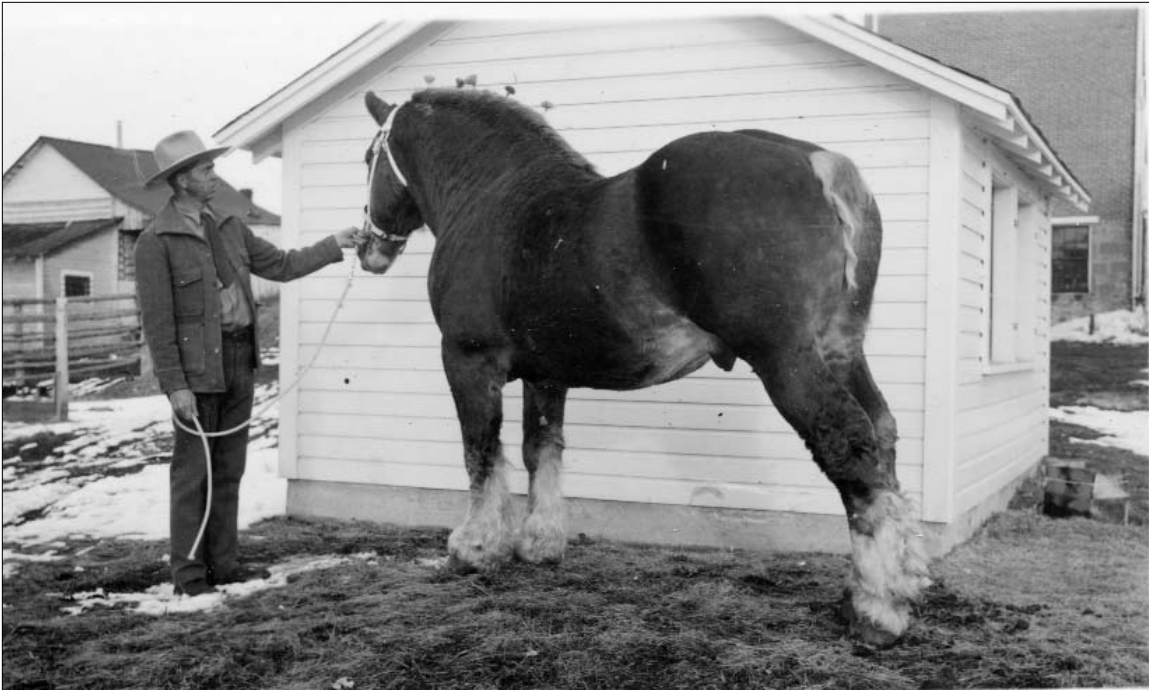


Figure 2-35: (15884.124) Unknown structure located in Lower House Yard west of residence, 1937

Source: Grant Kohrs Ranch NHS Archives



Figure 2-36: (4990WA) CK Show wagon, not at Grant Kohrs, probably at Great Falls, circa 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-37: (4991SH) CK Show wagon, not at Grant Kohrs, probably at Great Falls, circa 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-38: (16173L) Cattle at feed bunk, circa 1937.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-39: (6496HS) Conrad Warren branding cattle, 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-40: (16154H) Conrad Warren and cattle feeding, 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-41: (16172L) Conrad Warren with calves in corral, circa 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-42: (15884-24) Nellie Warren in front of HS-58, Warren House foundation, with garage framing in background, 1934.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-43: (15884-25) Construction of new Warren residence with Nellie Warren, 1934.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-44: (5991) Warren residence, 1934.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-45: (5992) Warren residence, 1934.

Source: Grant Kohrs Ranch NHS Archives

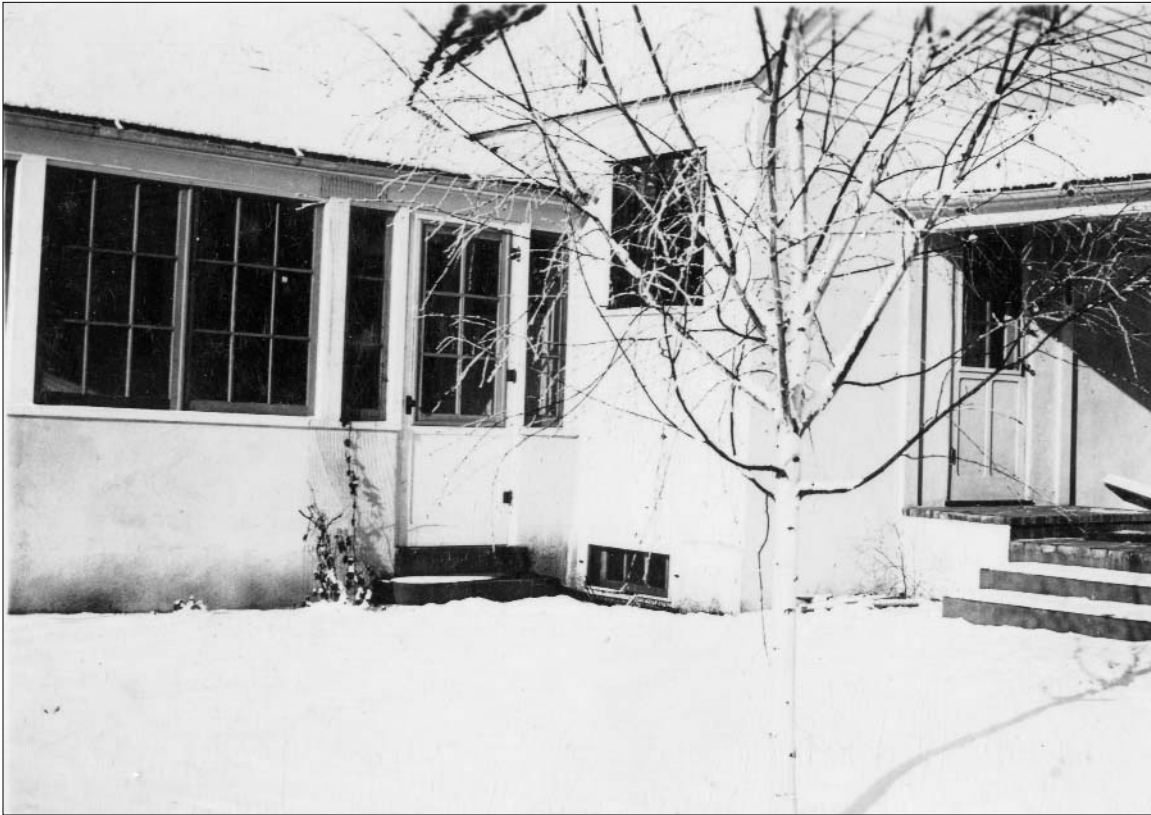


Figure 2-46: (5993) Warren residence, 1934.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-47: (5891) Pat Warren in yard (HS-58), ca. 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-48: (5936) Pat Warren in yard (HS-58) with trellis in background, ca. 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-49: (5931) Pat Warren in yard (HS-58) showing landscaped area between house and chicken coop, ca. 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-50: (5881) Pat Warren in yard (HS-58) with sweet pea trellis in background, 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-51: (5879) Pat Warren in yard (HS-58) with dog house in background, 1939.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-52: (15882.20) Pat and Bud Warren in yard between house (HS-58) and the North Fork of Johnson Creek, ca. 1942. Note there is no picket fence

Source: Grant Kohrs Ranch NHS Archives



Figure 2-53: (5964) Pat Warren in yard behind house (HS-58) with swing, ca. 1942.

Source: Grant Kohrs Ranch NHS Archives

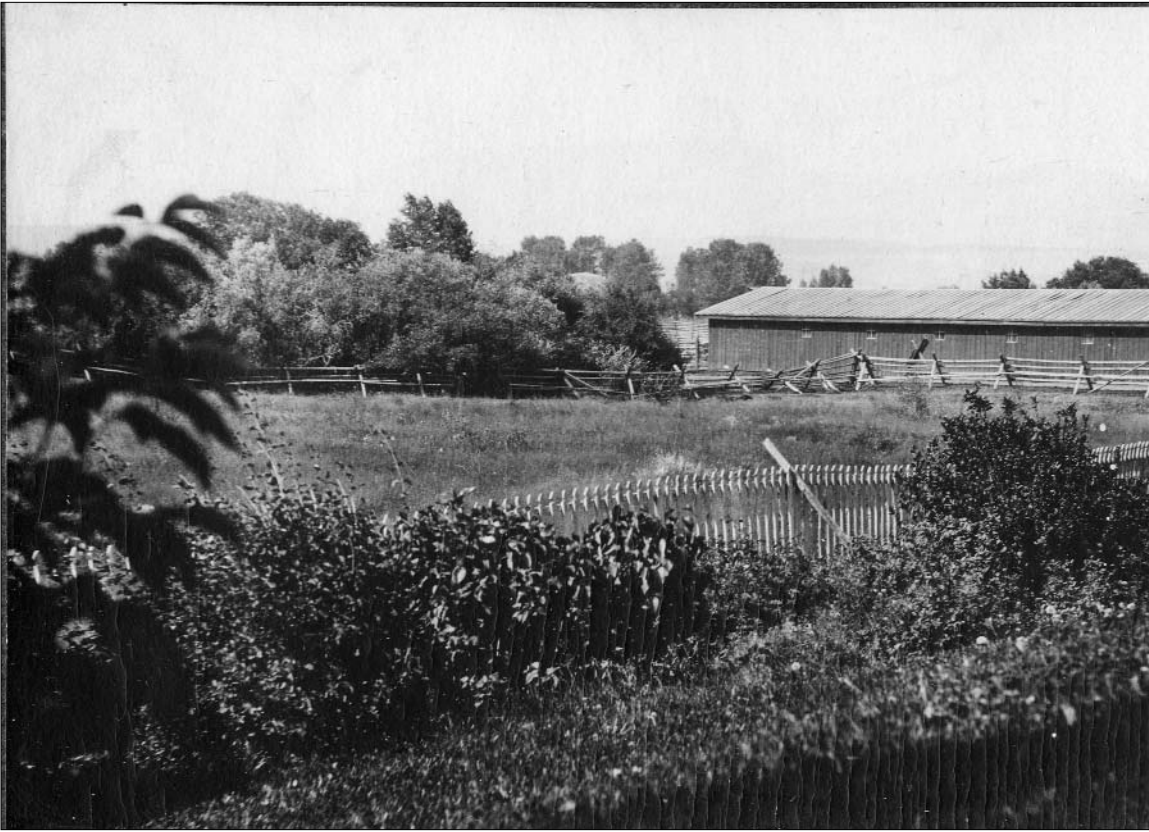


Figure 2-54: (16270H) Flower garden and shrubs, south side of Grant Kohrs Ranch House, Thoroughbred Barn in background. No date, possibly 1935.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-55: (1588451) Grant Kohrs Ranch House with fence and trees, no date, possibly 1936.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-56: (4979LO) Grant Kohrs Ranch, circa 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-57: (15884.140LowerYard1937) Lower House Yard, 1937. Note location of unknown structure between coal shed (HS-4) and ice house (HS-5).

Source: Grant Kohrs Ranch NHS Archives



Figure 2-58: (16841H) General view of ranch from the east, circa 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-59: (4986HS) Jack Peters with Grant Kohrs Ranch House in background, 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-60: (5995SH) Conrad Warren in lower yard with horse team, 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-61: (4992BU) Haying on the west side, circa 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-62: (4993BU) Haying on the west side, circa 1937.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-63: (6489HA) Grain stacks North West Little Meadow, circa 1937.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-64: (4994HA) Jayhawk Overshot Hay Stacker, 1938.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-65: (16158H) Conrad Warren on Sin, circa 1940.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-66: (16160H) Stallion Barn (HS-16), circa 1940.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-67: (16171W) Herefords in pasture, north of Warren Ranch, circa 1945.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-68: (16000H) High place looking west. Herefords grazing east of the ranch, Warren's summer pasture, circa 1950.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-69: (6833LO) View of ranch and cattle from northwest, circa 1940.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-70: (15969H) Warren House, 1947.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-71: (warrenHouse) Warren House, 1947. Note wire mesh gate is not in place at this time.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-72: (15967H) Grant Kohrs Ranch House and Bunkhouse Row, circa 1945.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-73: (16388H) Southwest view of Grant Kohrs Ranch House. No date, possibly 1952.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-74: (TREELAWN) Entry lane south of Bull Barns, no date.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-75: (16193A) Warren Hereford Ranch sign and barn, 1952.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-76: (15882.96) Picket fence behind Warren House (HS-58), shortly after construction, ca. 1953.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-77: (16058a) Birdbath and clothesline in Warren yard, 1964.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-78: (6582DE, SAME AS 16159D) Mt. Powell, Flint Creek Mountains, Deer Lodge Valley, possibly 1955.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-79: NPS Historical Base Map, 1958-1971.

Source: Grant Kohrs Ranch NHS Archives [unprocessed Resource Management Map Collection].



Figure 2-80: (16114G) Driveway approaching Grant Kohrs Ranch House with snow, 1972.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-81: (116274) Grant Kohrs Ranch House, No date.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-82: (6492HS) Front yard of Grant Kohrs Ranch House, no date.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-83: (MT-39-1) Aerial view of Grant Kohrs Ranch and neighboring town, taken from the southeast, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-84: (MT-39-3) Aerial view of Deer Lodge Valley with city and ranch in upper left, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-85: (MT-39-4) Aerial view of Grant Kohrs Ranch, taken from the north, ranch in center of photograph, Deer Lodge in upper left, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-86: (MT-39-5) Aerial view of Grant Kohrs Ranch, taken from the southwest, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey





Figure 2-87: (MT-39-6) Aerial view of Grant Kohrs Ranch taken from the southwest, close-up of ranch and main outbuildings, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-88: (MT-39-7) Aerial view of Grant Kohrs Ranch, taken from the west, with feed lots in mid-ground, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-89: (MT-39-8) Aerial view of Grant Kohrs Ranch , taken from the northeast, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-90: (MT-39-9) Aerial view of Grant Kohrs Ranch, with Warren Ranch in mid-ground left, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-91: (MT-39-10) Aerial view of Grant Kohrs Ranch with Warren Ranch in the foreground, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-92: (MT-39-11) Aerial view of Grant Kohrs Ranch, taken from the southeast with ranch house behind picket fence in mid-ground, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-93: (MT-39-12) Aerial view of Grant Kohrs Ranch, taken from the northeast, just above the ranch house, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey





Figure 2-94: (MT-39-13) Perspective view of Grant Kohrs Ranch, taken from western grounds, looking toward the ranch house and outbuildings, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey





Figure 2-95: (MT-39-14) Perspective view of the west corrals, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-96: (MT-39-14) Perspective view of the west yard and outbuildings, October 1974.

Source: Jack E. Boucher, Photographer, Historic American Buildings Survey



Figure 2-97: (16009H) Grant Kohrs Ranch House looking east, 1985.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-98: (16198A) Grant Kohrs Ranch looking northwest toward rear of ice house, 1985.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-99: (16198H) Farm equipment, 1985.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-100: (15916H) Cattle in corral near sales barn, circa 1972-1988.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-101: Aerial of Grant Kohrs Ranch, circa 1947.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-102: Detail of aerial view of Grant Kohrs Ranch, circa 1947.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-103: Aerial view of Grant Kohrs Ranch, 1960.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-104: Detail of aerial view of Grant Kohrs Ranch, 1960.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-105: Aerial view of Grant Kohrs Ranch, 1972.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-106: Detail of aerial view of Grant Kohrs Ranch, 1972.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-107: Aerial view of Grant Kohrs Ranch, 1979.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-108: Detail of aerial view of Grant Kohrs Ranch, 1979.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-109: Aerial view of Grant Kohrs Ranch, 1983.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-110: Detail of aerial view of Grant Kohrs Ranch, 1983.

Source: Grant Kohrs Ranch NHS Archives





Figure 2-111: Aerial view of Grant Kohrs Ranch, 1986.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-112: Detail of aerial view of Grant Kohrs Ranch, 1986.

Source: Grant Kohrs Ranch NHS Archives

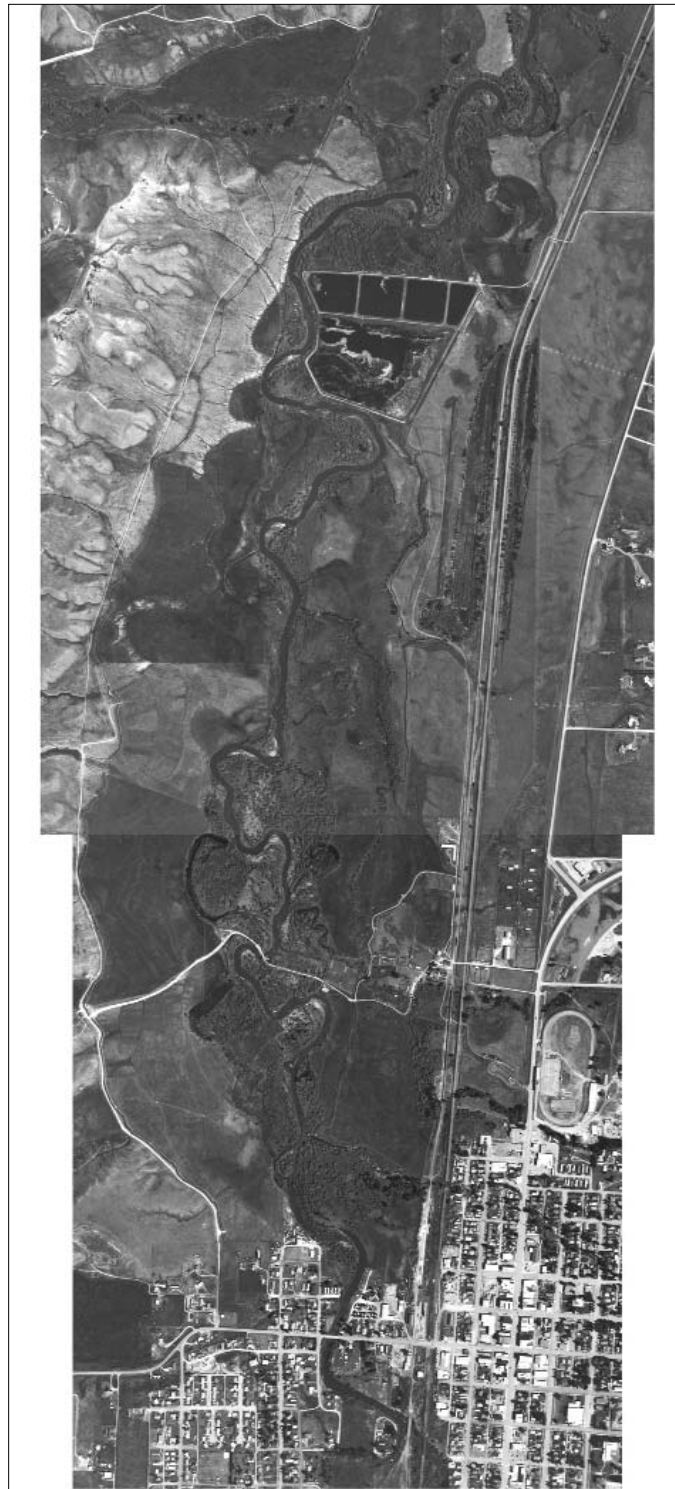


Figure 2-113: Aerial view of Grant Kohrs Ranch, 1994.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-114: (4-02) Detail of aerial view of Grant Kohrs Ranch, 1994.

Source: Grant Kohrs Ranch NHS Archives



Figure 2-115: (GK\_94-2) Aerial view of Grant Kohrs Ranch, 1994.

Source: Grant Kohrs Ranch NHS Archives



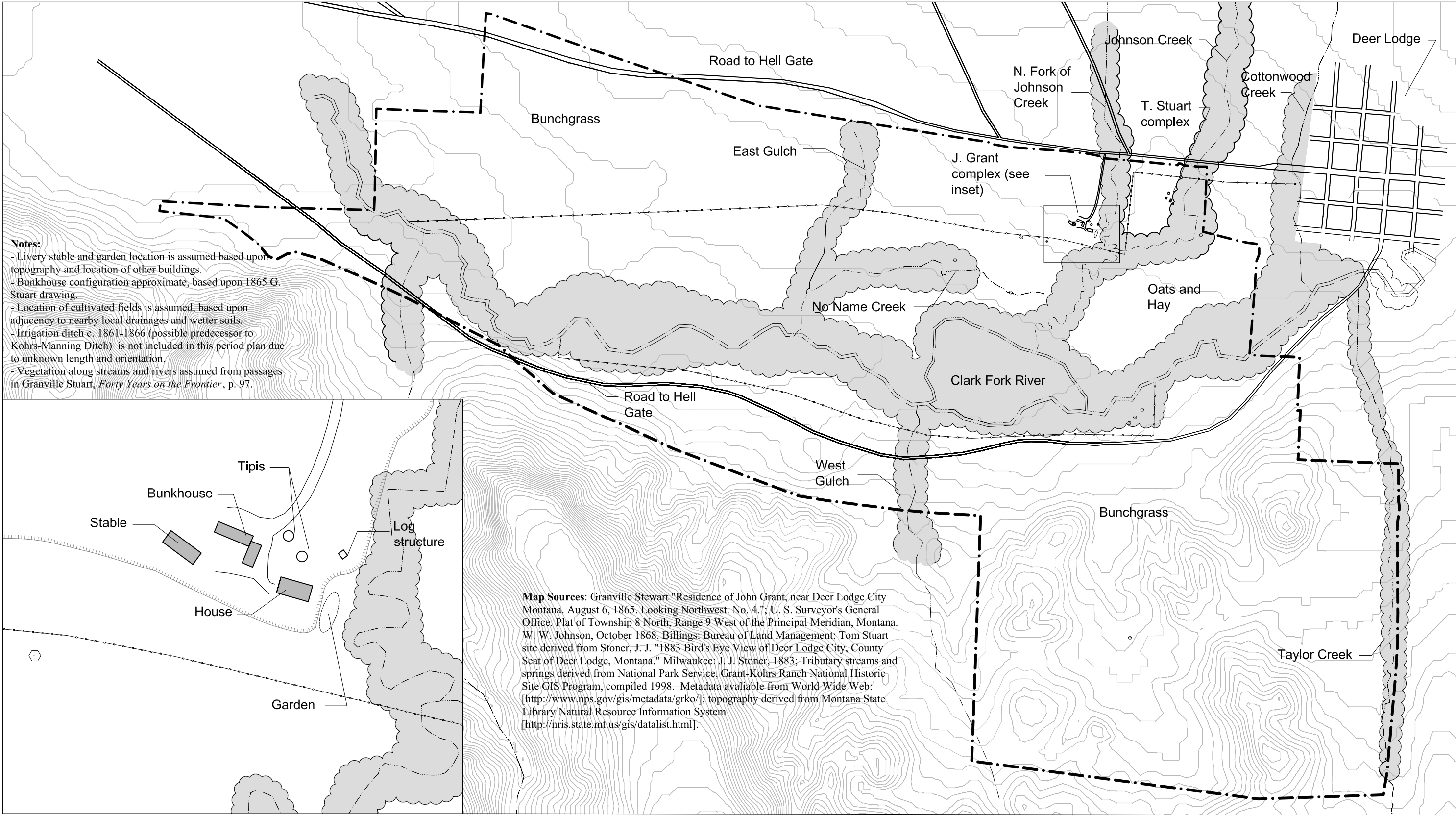
Figure 2-116: (gk\_94-1) Aerial view of Grant Kohrs Ranch, circa 1994.

Source: Grant Kohrs Ranch NHS Archives

*Period Plans*

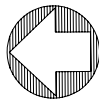






J. Grant  
Complex (inset)  
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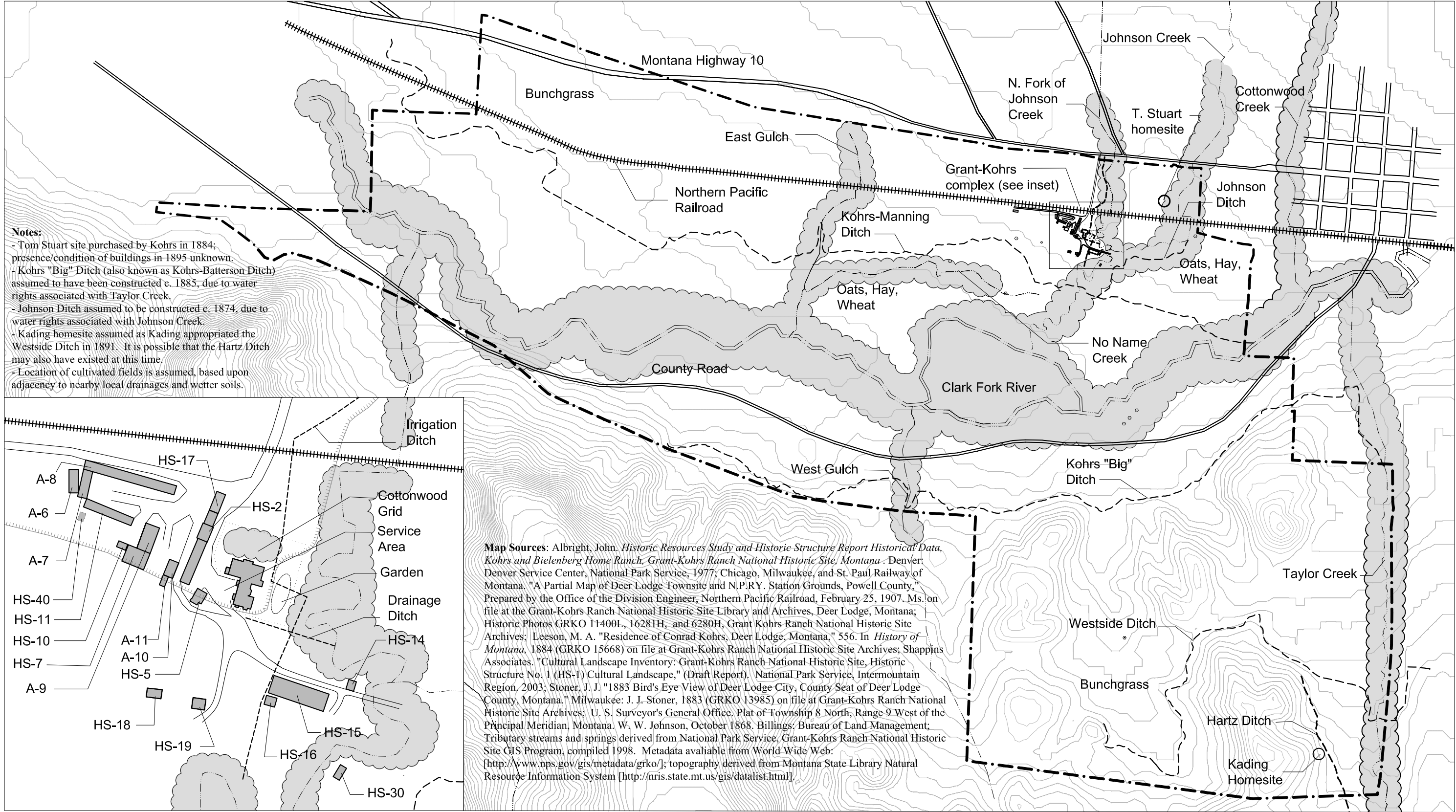
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| Vegetation      | Buildings/ Structures | Component Landscape Boundary Line |
| Bench           | Springs               | GRKO Boundary Line                |
| Fences          | Old Ditches           | Beaver Lodges                     |
| Streams/Sloughs | Main Ditches          |                                   |



Scale: 1" = 1,200'

A/E FIRM  PRIME NAME: Susan Maxman Architects CITY/STATE: Philadelphia, PA  SUBCONTRACTOR NAME: John Milner Associates, Inc. CITY, STATE: Charlottesville, VA	DESIGNED:	SUB SHEET NO.  <b>H-1</b>	<b>GRANT-KOHR'S RANCH</b>  <b>Period Plan c. 1865</b>  GRANT-KOHR'S RANCH NATIONAL HISTORIC SITE	DRAWING NO.
	DRAWN:			PKG. NO.
	TECH. REVIEW:			SHEET
	RMM DATE: JULY 2004			OF





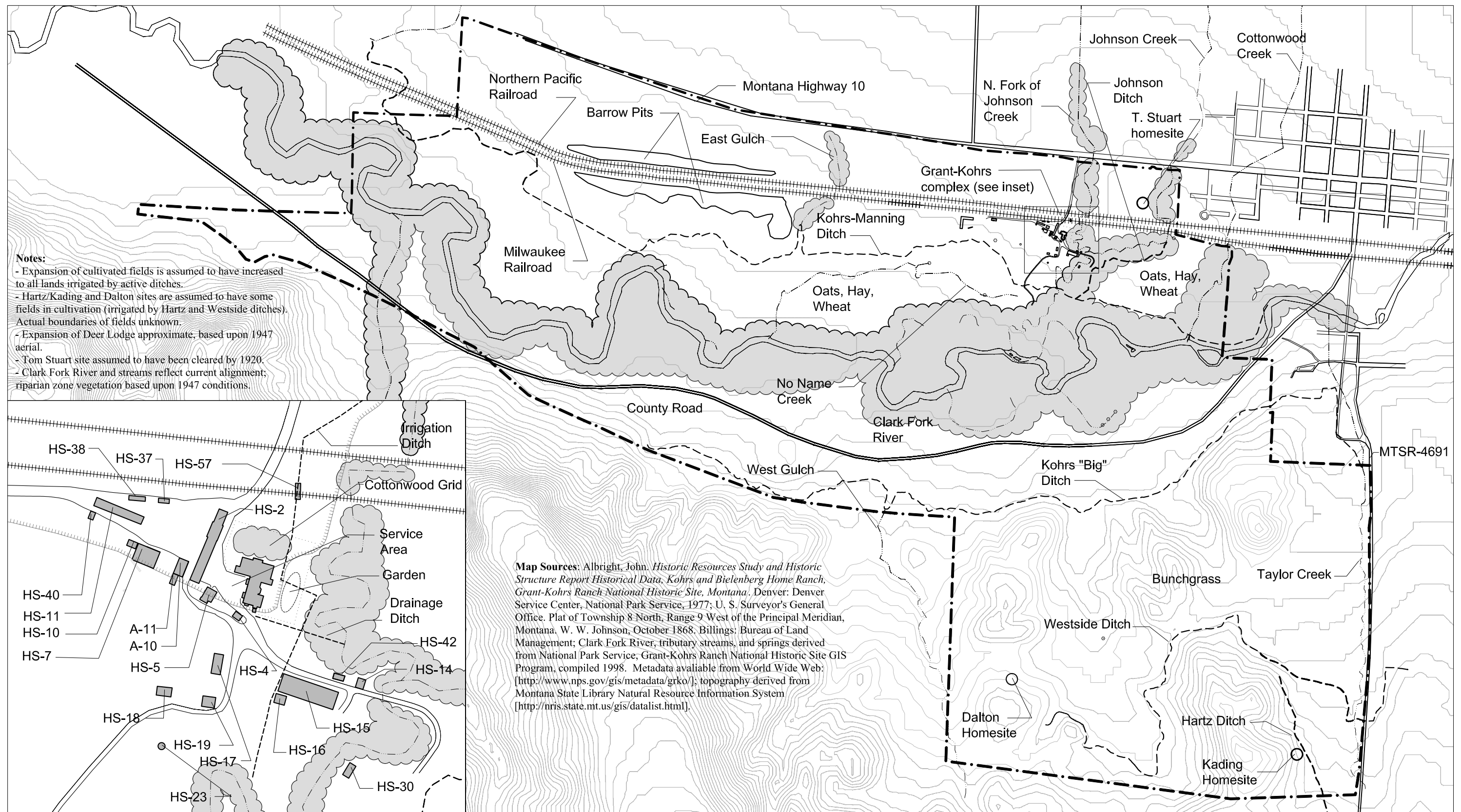
Grant-Kohrs  
Complex (inset)  
Scale: 1" = 200'

- Legend:**
- |                 |                      |                                   |
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| Vegetation      | Buildings/Structures | Component Landscape Boundary Line |
| Bench           | Springs              | GRKO Boundary Line                |
| Fences          | Old Ditches          | Beaver Lodges                     |
| Streams/Sloughs | Main Ditches         |                                   |

Scale: 1" = 1,200'






A/E FIRM		DESIGNED:	SUB SHEET NO.	DRAWING NO.		
PRIME NAME: Susan Maxman Architects CITY/STATE: Philadelphia, PA		DRAWN:	H-2		PKG. NO.	
SUBCONTRACTOR NAME: John Milner Associates, Inc. CITY, STATE: Charlottesville, VA		TECH. REVIEW:				SHEET
		DATE:				
		JULY 2004				
GRANT-KOHR'S RANCH Period Plan c. 1895 GRANT-KOHR'S RANCH NATIONAL HISTORIC SITE						










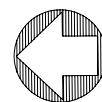
Grant-Kohrs  
Complex (inset)  
Scale: 1" = 200'

Legend:

 Roads  
 Vegetation  
 Bench  
 Fences  
 Streams/Slopes

 Railroad  
 Buildings/  
Structures  
 Springs  
 Old Ditch  
 Main Ditch

--- Lateral Ditches  
 - · - · Component Landscape Boundary Line  
 - · - · GRKO Boundary Line  
 ● Beaver Lodges



Scale: 1" = 1,200'

A/E FIRM

PRIME

NAME: Susan Maxman Architects

CITY, STATE: Philadelphia, PA

SUBCONTRACTOR

NAME: John Milner Associates, Inc.

CITY, STATE: Charlottesville, VA

DESIGNED:

DRAWN:

\_\_\_\_\_ KLS

TECH. REVIEW:

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DATE:

JUL Y 2004

SUB SHEET NO.

H-3

GRANT-KOHR'S RANCH

Period Plan c. 1920

GRANT-KOHR'S RANCH NATIONAL HISTORIC SITE

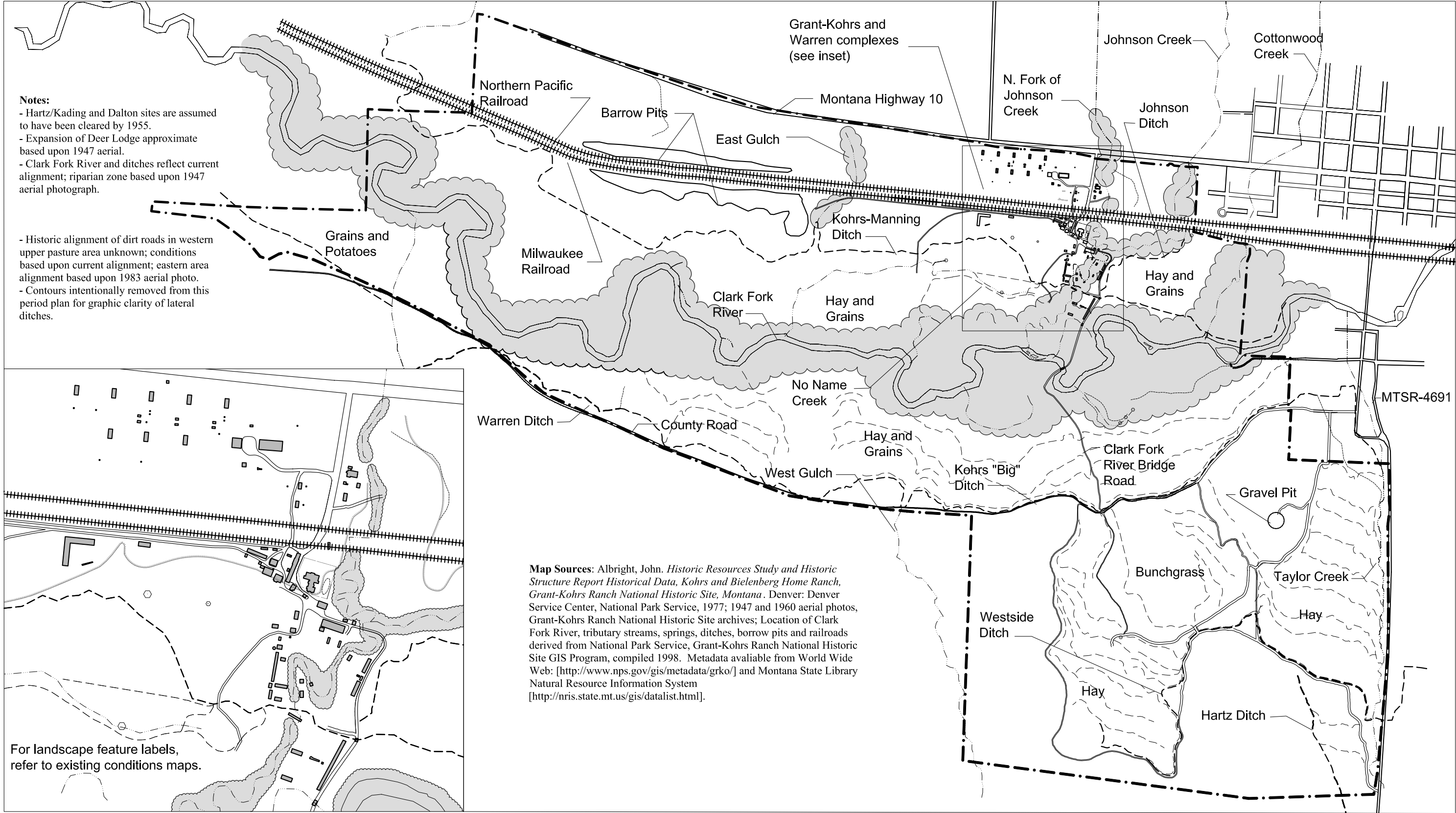
DRAWING NO.

PKG.  
NO.

SHEET

OF





Grant-Kohrs and  
Warren Complexes  
(inset)  
Scale: 1" = 500'

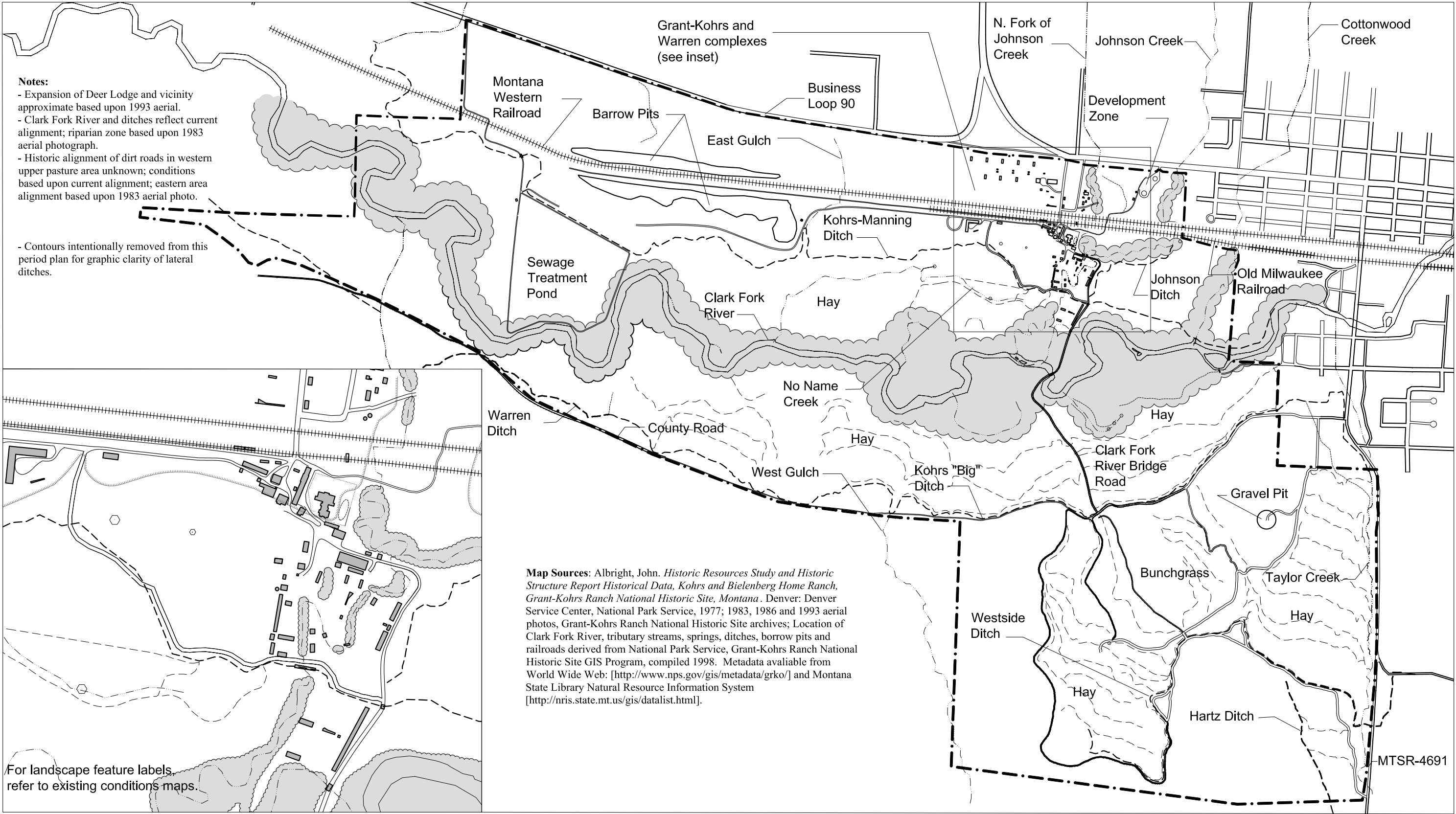
Legend:			
Roads	Railroad	Lateral Ditches	
Vegetation	Buildings/ Structures	Component Landscape Boundary Line	
Bench	Springs	GRKO Boundary Line	
Fences	Old Ditches	Beaver Lodges	
Streams/Sloughs	Main Ditches		

Scale: 1" = 1,200'

A/E FIRM  PRIME NAME: Susan Maxman Architects CITY, STATE: Philadelphia, PA  SUBCONTRACTOR NAME: John Miner Associates, Inc. CITY, STATE: Charlottesville, VA	DESIGNED:	SUB SHEET NO.  <b>H-4</b>	<b>GRANT-KOHR'S RANCH</b>  <b>Period Plan c. 1955</b>  GRANT-KOHR'S RANCH NATIONAL HISTORIC SITE		DRAWING NO. _____	
	DRAWN:					
	TECH. REVIEW:					
	DATE: JULY 2004					
					PKG. NO. _____ OF _____	SHEET  OF _____







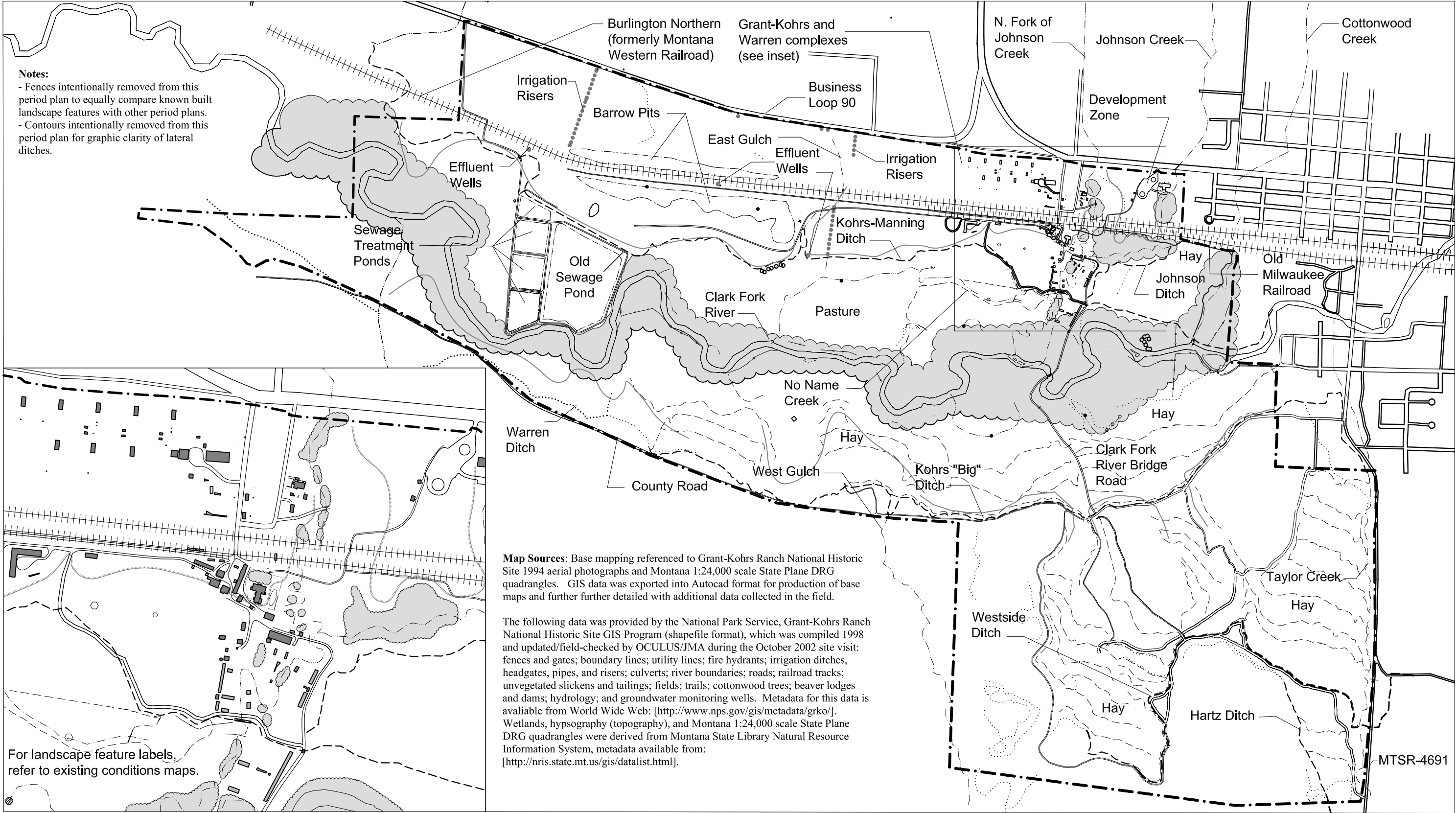
Grant-Kohrs and  
Warren Complexes  
(inset)  
Scale: 1" = 500'

Legend:			
	Roads		Railroad
	Vegetation		Buildings/ Structures
	Bench		Springs
	Fences		Old Ditches
	Streams/Sloughs		Main Ditches
			Lateral Ditches
			Component Landscape Boundary Line
			GRKO Boundary Line
			Beaver Lodges

Scale: 1" = 1,200'

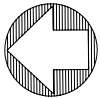
A/E FIRM  PRIME NAME: Susan Maxman Architects CITY, STATE: Philadelphia, PA  SUBCONTRACTOR NAME: John Milner Associates, Inc. CITY, STATE: Charlottesville, VA	DESIGNED:	SUB SHEET NO.  <b>H-5</b>	<b>GRANT-KOHRs RANCH</b>  <b>Period Plan c. 1982</b>  GRANT-KOHRs RANCH NATIONAL HISTORIC SITE	DRAWING NO.	
	DRAWN:			PKG. NO.	SHEET <div></div>
	TECH. REVIEW:				
	DATE: JULY 2004				





Grant-Kohrs and  
Warren Complexes  
(inset)  
Scale: 1" = 500'

- Legend:**
- Roads
  - ++++ Railroad
  - — — Lateral Ditches
  - Cloud Vegetation
  - Buildings/Structures
  - — — Component Landscape Boundary Line
  - ||||| Bench
  - Springs
  - — — GRKO Boundary Line
  - Fences
  - ..... Old Ditches
  - Beaver Lodges
  - — — Streams/Sloughs
  - — — Main Ditches



Scale: 1" = 1,200'

DRAFT - WORK IN PROGRESS

A/E FIRM		DESIGNED:	SUB SHEET NO.	DRAWING NO.
PRIME NAME: Susan Maxman Architects CITY/STATE: Philadelphia, PA		DRAWN:	H-6	GRANT-KOHR'S RANCH Period Plan 2003 GRANT-KOHR'S RANCH NATIONAL HISTORIC SITE
SUBCONTRACTOR NAME: John Miner Associates, Inc. CITY/STATE: Charlottesville, VA		TECH. REVIEW:		
DATE:				
JULY 2004				PKG. NO. SHEET OF

